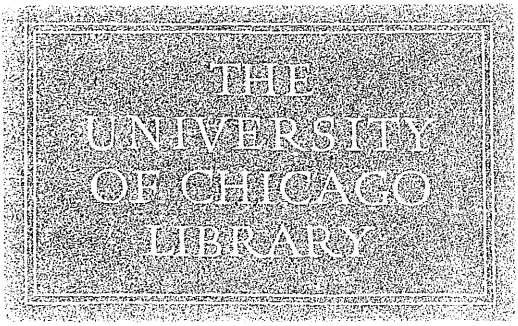

THE
UNIVERSITY
OF CHICAGO
LIBRARY

THE

RELIGIOUS RESPONSE

AN INTRODUCTION TO THE PHILOSOPHY OF RELIGION

BY

HENRY WILKES WRIGHT

Professor of Philosophy
in the University of Manitoba



HARPER & BROTHERS PUBLISHERS

NEW YORK AND LONDON

1929

BL 51
.W 28
C.1
Gen

THE RELIGIOUS RESPONSE

COPYRIGHT, 1929, BY HARPER & BROTHERS

PRINTED IN THE U. S. A.

FIRST EDITION

I-D

895277

CONTENTS

CHAPTER		PAGE
I.	The Religious Response	1
II.	The Problem of Religion	15
III.	Discarded Conceptions of the Spiritual	27
IV.	The World of Physical Science	53
V.	The World of Everyday Perception, Its Two Aspects	67
VI.	The Responses of Appreciation *vs.* the Responses of Action	83
VII.	How Objects Are Related in Their Aspect of Value	100
VIII.	How These Relations Are Verified	133
IX.	The Objective System of Values as the Spiritual World	151
X.	Does the Objective System of Values Imply a Cosmic Intelligence?	166
XI.	Religion and Morality	188
XII.	The Religion of Experience and Experiment	208
	Index	253

The Religious Response

CHAPTER ONE

THE RELIGIOUS RESPONSE

NO LEADING human interest or social institution is more provocative of controversy than religion. Even upon a question of fundamental fact like that of the place and importance of religion in human culture, different views are possible and defensible. When we consider how religion has endured through the long course of social history and how its vital spirit has survived innumerable changes of outward form, we may be convinced that it stands as a permanent and necessary expression of human nature, essential to human life, inseparable from human experience. The hostile influences which now attack it seem no more likely to work its destruction than are the

storm winds to destroy the granite mountain peak against which they blow. But when we think of the way in which other cultural influences, scientific and ethical, have steadily encroached upon religion, we seem driven, in spite of ourselves perhaps, to the opposite conclusion. In particular is this the case when we think of how the advance of scientific knowledge has undermined the authority and diminished the prestige of religion. Seen in the light of these tendencies religion appears as a provisional and pre-scientific interpretation of the human world. It appears as a temporary stage inevitable in the development of human culture but equally certain to give way and disappear as man progresses to more intelligent interpretations of his own life and environment. Even now in Western civilization we seem to see the influence of religion waning and approaching extinction as scientific knowledge becomes

more widespread and scientific conclusions gain more general acceptance.

What do we mean by *religion?* Many definitions have been proposed and it would be interesting to review a number of the most successful. But it is not a definition that we want, at least not in the textbook sense of a formal statement which will apply to all historic forms of religion from the totemism of primitive man and the fetishism of the savage to enlightened Judaism and Buddhism and Christianity. What we should have clearly in mind before we begin any discussion of the present-day problems of religion is a descriptive statement on which we can agree, as true to the distinctive character of religion, true to that germ of meaning which has persisted through the long and devious courses of social history, has vitalized a bewildering number of savage superstitions and fanciful mythologies, and has finally

come to articulate expression in systematized religious belief.

On one point there is certainty. Religion is an expression or attitude of human nature in its entirety, of the whole man, not of any particular part or special faculty. This is a fundamental truth, one too obvious, it would seem, to be ignored or denied. Yet it has been ignored and virtually denied. The reason is that students of a complex response like the religious tend to become interested in some one special aspect or phase of it, to concentrate their attention upon this aspect, to emphasize it at the expense of all others, and finally to put it in place of the whole. So in the case of religion, we have had very able writers maintaining that religion was essentially belief, belief in super-personal powers or deities. We have had others identifying it primarily with a mode of emotion like the feeling of awe or of adoration or of

dependence, and still others finding its essence in acts of worship or of ritualistic performance. But such one-sided and partial interpretations are now unanimously rejected; it is agreed that the religious response involves the whole nature of man and thus affects his thinking, his states of feeling, and his acts.

Understanding then that religion is a response of an intelligent human nature in its entirety and also that since man is essentially a social being any such response of his whole nature will have its social reference and implications, we next ask: What object or stimulus calls forth this response? An answer in harmony with contemporary tendencies of thought would perhaps be that religion is a response on the part of the human individual to the moral and social values which he holds supreme. There is truth in this: we all recognize that religious faith in

its developed form is concerned with our moral and social ideals, with the fulfilment of our human hopes and aspirations, with the realization of our social purposes and our personal ideals. But it is more than this. What the *more* is, is indicated by a famous definition of religion as faith in the "conservation" of values.[1] Such faith in the conservation of values, if it has any distinctive meaning, necessarily looks beyond our human nature and its purposes and ideals to the nature of the world, to the character of the encompassing universe. It affirms that the values which we rate highest are grounded in the nature of the existing world; it affirms that the universe is such as to guarantee the realization of these values.

Religion, therefore, is not merely a response to valued objects, to ideals of excellence and worth; it is also a response to the real universe.

[1] Höffding, *Philosophy of Religion*, p. 10ff.

Indeed it is, primarily, a response of the intelligent human individual to Universal Reality. Objection to this statement may undoubtedly be made on the ground that it attributes to the average man an interest in what is really a metaphysical abstraction. The vast majority of human beings, it will be said, have never even thought of "reality with a capital R," of the Universe as the philosopher conceives it. They are concerned only with the particular situations and circumstances which arise in their own daily lives, are interested only in that part of the earth they happen to inhabit, and are aware of the natural world only as it affects the local conditions under which they carry on the business of living.

Of course it would be absurd to suppose that his religion makes a metaphysician out of the ordinary man or that it gives him an interest in the philosophical problem of the

Ultimate Reality. By "Universal Reality" as the object which calls forth the religious response something is meant admittedly vague. Something not definitely conceived after the manner of philosophy but none the less real for that: the cosmic background of human life, the total scheme of things. From time to time the average man is reminded of this cosmic background of his own life and activities by the uncertainty, the hazards, and the mystery of human life, features which force themselves upon his notice in a multitude of ways and a variety of circumstances, in periods of crisis and danger, at times of triumph and fulfilment, in moments of yearning and aspiration, in the bitterness of disappointment and the hopelessness of grief. On such occasions he is reminded that birth and duration of life, the preservation of health and personal vigor, the unfolding of plans and the fruition of friendship, are for him as for all

human beings in the control of natural forces which link up somehow with the cosmic system. Through the use of his own intelligence and the knowledge gained by his fellows he can, within comparatively narrow limits, predict the incidence of these forces and hence foresee and control his own future. But in spite of the widening area of human control each man knows that his life ends as it began, in mystery; his successes, so impressive when viewed at short range, serve merely to accentuate his helplessness in the vast driftings of cosmic weather. Every man, as we say, owes his debt to nature: so every man is eventually brought face to face with the "total scheme of things."

And religion is his personal response to this "total scheme of things." What kind of response? we next inquire. The religious response is an affirmation on man's part of his personal confidence in the Supreme Cosmic

Power. Now all expressions of confidence can have but one rational ground or source. We only trust that which we deem trustworthy. The basis of our confidence in any object is always some valuable quality or qualities which we have found in it. In the case of a machine it is its steadiness and efficiency of operation which we rely on, for these are the qualities a machine must have if it is to produce the results we desire. So in case of the Universe the ground of the confidence we feel in it is an inherent excellence we believe it to possess. But in this case it is much more than uniformity and efficiency in mode of operation. When we respond to the Supreme Cosmic Power with religious faith, we are not expecting, if our faith is at all intelligent, to obtain from it any of the particular objects or results which we as individuals happen to desire. It is not even our individual interests as we understand them, or

the private ambitions we have cherished, which we rely on the Universe to gain or to promote for us. We are not attributing to the Universe any special solicitude for, or sympathy with, these private schemes and ambitions of ours. What we have in mind is rather the objects and experiences to which we as intelligent persons attach intrinsic or absolute value, the insights and achievements, the loyalties and sympathies, of personal life and association. It is these values whose reality is at stake. And if we do feel a personal confidence in the Supreme Cosmic Power (as the religious man does) this means that we affirm the ultimate reality of, the real conservation of, these values. We have confidence in the Universe because we believe it is essentially good and will make goodness prevail.

The religious response we thus recognize as an expression of confidence in Universal Re-

ality. Its effect is to reassure the human individual when confronted with the ultimate issues of life, to reassure him since it seems to guarantee the reality of those values which he in moments of clearest thought and widest vision holds highest. We can be still more explicit in characterizing the religious response, although we cannot go far in this direction without anticipating conclusions to be later arrived at as the result of analysis and argument. The values to which religion ascribes an ultimate and conquering reality are, as was just pointed out, those which our reason recognizes as intrinsic and absolute. Now, they are all values of personal achievement and association. They may seem, it is true, to take on an impersonal form when conceived as Truth or Power or Progress or Beauty. But Truth and Power and Progress and Beauty imply in their attainment mutual insight and community of understanding, co-

operation and fellowship, love and intelligent sympathy, on the part of intelligent persons. Hence the values in question, recognized by reason as highest, are values realized in intelligent community and through personal association.

To believe, as religion does, that these values are ultimately real is to believe that there is in the Universe an enduring appreciation of these values and a prevailing power and purpose to realize them. If, however, this much is implied in faith in the ultimate conservation of values, religion in effect discovers common ground between human nature and the cosmic reality. The two are linked together by their appreciation of the insights and activities of intelligent community and personal association. This kinship makes possible personal communion. So the religious response tends to develop by inner logic of its own, from confidence in, to communion

with, God. In such communion religious faith finds confirmation and fulfilment. For it not merely gives assurance of the reality of the highest personal and social values; it realizes these values in actual experience.

Religion we then understand as an expression of confidence on the part of human beings, individually or collectively, in the goodness of the real universe, which leads to communion with the power or powers believed to control it.

CHAPTER TWO

THE PROBLEM OF RELIGION

RELIGION we propose to understand as a response, on the part of the human individual, of personal confidence in the real universe. We have now to consider the problem which this response and the faith behind it create for modern thought.

Why, we may wonder, does any problem arise at all? Confidence in the Supreme Cosmic Power has been produced in the minds of a large proportion of mankind by their experience of life and the world; and they have expressed the confidence they have felt by appropriate words and acts. Why need any intellectual or theoretical difficulty intrude itself? Nevertheless, a problem does arise and its source is to be found in an assumption as

to the nature of the world which underlies the religious response. Indeed it is not too much to say that a definite view of the world is implied in religious faith. Man can in reason *trust* a Universe only if he believes it trustworthy. And he can regard it as trustworthy only if he attributes to it an appreciation of the values he holds highest, those of personal character and personal association, and a purpose and a power to realize these values. This assumption concerning the nature of the world it is which creates the theoretical or philosophical problem of religion. Human thought is bound to inquire: Is the religious view of the world as truly worthy of man's trust and confidence rationally justifiable in view of the facts of human experience and the attested conclusions of human science?

To this statement that religion involves a view of the world which requires rational scrutiny, serious exception may be taken. Is

not religious faith, it will be asked, essentially a venture? Hence, is it not quite wrong to insist upon examining beforehand the rational grounds for its confidence in the universe? To expect in this case anything like rational proof or demonstration is to expect that faith converts itself into knowledge. If confidence in the Universe, honestly and resolutely acted upon, produces satisfying results, if it gives human beings increased power to realize their ideals, if it gives added scope and meaning to their social contacts, if it makes their achievements more enduring and their friendships more fruitful, this is all the justification that it needs before the bar of reason, and all it can have. Religious faith is essentially experimental; in its own field it must precede, not follow, knowledge.

There is a large measure of truth in these contentions. But such truth as there is, is quite consistent with the statements just made

as to the problem of religion. Religion we must acknowledge to be an independent source of authentic experience as to the world in which we live. The facts which its practice brings to light are distinctive facts which must be taken account of in any comprehensive view of man and his cosmic relations. The procedure of religion (as I shall have occasion later to emphasize) is necessarily experimental. And in an important sense the rational justification for the assumption on which the religious response proceeds is to be sought in the results it produces rather than in its own logical cogency and rational grounds. Certainly it would be a mistake to hold that the truth of all religious beliefs should be rationally demonstrated before they are accepted and acted upon.

But there is more to be said. Human intelligence is not a house divided against itself. Is it therefore conceivable that a view of the

world contrary to, or inconsistent with, scientifically ascertained and verified fact would have practical results permanently good? A Universe in which such a state of affairs could obtain would prove itself to be the reverse of trustworthy. A religious faith which, in the supposed interests of the higher hopes and values of human life, proceeded upon a view of the world unscientific and anti-scientific could receive the proof it seeks of the essential orderliness and rectitude of the universe only through its own failure and frustration. Religious faith, while it may properly transcend or exceed scientific fact, should not contravene or contradict it. Briefly stated, the view of the world on which religion bases its response must be consistent with itself, and not inconsistent with the accepted and growing body of human knowledge.

Hence a rational scrutiny of religious belief is called for. This is the task of the philos-

ophy of religion: to examine the beliefs of religion and particularly the religious view of the world in the light of existing knowledge. And the purpose of such an examination is not to find out whether the beliefs of religion are demonstrably true, but whether they are tenable, are rationally possible, when we take into consideration all the facts of everyday human experience and scientific discovery.

Now it is an indubitable fact that the conviction is growing among thinking people today that the scientific world-view is inconsistent with that view of the world which is implied in the religious response. The steady advance of scientific explanation in modern times, "the extension of matter and causation and the concomitant banishment of spirit and spontaneity," as Huxley described it a half-century ago, has been a growing source of difficulty to religion. It is easy to see why this

is so. As physical science understands it, the existing world is a succession or system of events and every event is reducible to a mode of motion of material particles, or mass-points, or energy-units. And every movement of every material particle or energy-unit is determined by the movements of other mass-points or energy-units and ultimately by the whole mechanical system. In such a world, in which every event is mechanically determined, there is obviously no place for vital synthesis and spontaneity, for individual initiative and personal freedom, for communal intelligence and organizing ideals. If this is the last and only word which human intelligence finds it possible to say about the existing universe, it is absurd to expect from it any solicitude for the values, personal and social, which we human beings cherish and seek to realize. Personal confidence in it, in the sense religion intends, would be misplaced and mistaken. The

religious response would be rendered impossible.

Just this conclusion has been reached by many minds alive to the trend and import of modern scientific progress. How does it stand with the so-called intellectual classes today, with the working scientists and the writers who are seeking to assimilate and impart ideas and not merely to please and entertain, with the artists who regard their art as a vehicle for the expression of vital experience, with university teachers and those engaged in social research and relief? A generation ago it could probably have been said—and the statement would have sounded startling enough at the time—that only a minority of this class were "orthodox" in religious belief. Today it is doubtful if more than a minority retain any belief in a personal God or in the enduring reality of the human soul.

Nor are matters greatly helped by the pub-

lication of carefully prepared statements by leading scientists to the effect that they as individuals have no difficulty in reconciling a firm religious conviction with their scientific knowledge. For a closer examination generally shows that the adjustment is accomplished by excluding religion from the intellectual field altogether and finding a home for it in the sphere of feeling and social relations. What is meant by religion is, accordingly, a profound and earnest admiration for an ideal of life and character like the Christian and a sincere acceptance of the duty of social service with resulting obligation to self-denial and personal sacrifice.

Such statements on the part of leading scientists, which purport to deny any real conflict between the scientific view of the world and religious faith, bring forcibly home to us the philosophical problem of religion. "Our knowledge of the existing world," they

seem to say, "we shall obtain altogether from natural science but at the same time we confess our need for the inspiring, strengthening, and consoling influence of religion in our personal conduct and our social relations." But we cannot thus escape the question of the religious view of the world. Does not religion presuppose a conception of the actual world which is radically different from, if not diametrically opposed to, the scientific? Different it certainly is, and also diametrically opposed if the scientific view of the world is understood as complete and exclusive of all other interpretations. But is the scientific world-view, does it pretend to be, complete and exclusive of all others?

The thoughtful student of religion today has therefore to face the problem of the *validity,* or at least the *tenability,* of the religious view of the world. Is it necessarily inconsistent with the conclusions of natural science?

Does it gain any support from the facts of everyday experience? These are questions which cannot be evaded, because religion cannot be limited to the subjective sphere of individual hope and aspiration, cannot be regarded, that is to say, as a projection and hypostasis of human ideals, or a compensatory mirage, and survive. Religious faith has an inherent and necessary objective reference; it ventures a judgment, it makes an affirmation, about the real world. Of course if this judgment proves untenable in the light of human experience it must be given up. We do not wish to delude ourselves. But if this is the case and the belief in question turns out to be unwarranted and indefensible, religion itself must be dismissed as a delusion.

It is no mere symptom of intellectual immaturity, therefore, that religious thought in past ages should have affirmed belief in a "spiritual" world. This of course it has done;

in fact, confident assurance of the existence of another and a higher world than the material has been a distinctive mark of the religious consciousness in all times. And indeed it seems that if it cannot be shown to be in some sense reasonable, religion must perish. The idea that we can receive from natural science all our rational ideas and explanations of ourselves and the world in which we live, and still retain religion as a source of emotional uplift and practical direction, is merely to trifle and to temporize. The fate of religion is bound up with the fate of belief in a higher spiritual world or order; if one is doomed to rejection, the other is doomed to extinction.

CHAPTER THREE

DISCARDED CONCEPTIONS OF THE SPIRITUAL

IS THERE such a thing as a spiritual world-order? This is the crucial problem of religion. And upon the answer which human thought finds itself compelled to give to it the future of religion largely depends.

For religion is definitely committed to the belief that the values of personal development and personal association exercise a determining influence in the real world. Else the response of personal confidence in the Universe is unreasonable if not impossible. And as human intelligence awakens and grows it is bound to become increasingly aware of this fact, with results which may be disastrous to religion. Hence an inquiry into

the validity of the religious view of the world is of momentous interest to every serious student of religion today. On such an inquiry we now embark.

A world-order dominated by the values of moral character and social community we call, partly for the lack of a better name, "spiritual." "Spiritual" has at least the merit of meaning a type of organization different from the material or physical. But it has also misleading associations, such as those with "spiritism" and "spiritualism." Hence it will be good policy to begin with a brief review of the principal meanings which have been given to this much used and much abused term by the religious thought of the past. We wish to make doubly sure that we do not give allegiance to any of these old and discarded conceptions clothed in a new dress. Besides, these conceptions are not uninteresting in themselves and contain, along with much error,

many fruitful suggestions which bear upon the solution of our problem.

Whatever else it may mean, "spiritual" at least signifies something radically different from the material. The material world is always with us, material objects force themselves on our notice every hour in the day, and we are very familiar with their qualities. Therefore it is not strange that men in their first efforts to conceive of the spiritual drew upon their knowledge of material objects and material qualities. Is the spiritual different from, even opposite to, the material? Well then, spiritual objects must be distinguished by the lack of those very qualities which make material objects material. What are these but the degrees of hardness and solidity, of heaviness and impenetrability, which make matter the substantial thing it is? Spirit, it was thought, was distinguished by the lack of these qualities. But in carrying out this idea early

human thought was unable to get away entirely from the material. It contented itself with ascribing to the spiritual these physical properties reduced to the extreme limit of refinement and attenuation. The spiritual was understood as the light and ethereal, the intangible and (because of its lack of solid substance) the invisible. But it was supposed to have shape and size. And location, too; for while it is extremely mobile it is, at every instant, *somewhere.*

Thus we can easily understand the line of thought which led men to their first conception of spirit as the ethereal duplicate, the ghostly double, of material body, in particular, of course, of the bodies of men and animals. This is the theory called *animism* or *spiritism* and is what the philosopher Haeckel had in mind when he ridiculed the Christian idea of God as that of a "gaseous vertebrate." This conception of the spiritual is as old, or

nearly as old, as human thought itself, and very widespread among the different races of mankind. As to the first beginnings of belief in spirits in this sense, we can only speculate. But students of primitive human thought and social life point to several striking experiences, themselves universal accompaniments of human life, which would almost certainly suggest, and lend support to, animism.

One of these is dreaming. In his dream the savage visits places far distant from his encampment, perhaps he hunts and fights with former associates and friends who he knows on awakening are far removed by barriers of land and water from his present abode and field of action. Such dream-images, remembered on awakening, haunt his mind and press for explanation. He can easily assure himself that he did not, in the bodily sense, leave his bed during the time of sleep. What conclusion more natural, more altogether plausible,

then, than that his dream self, a second or duplicate self, left his body during sleep and visited these distant scenes and took part in these far-off hunts and fights and feasts and revels with acquaintances and relatives from whom he had been long separated in waking life?

And since the striking thing about the dream self was its mobility, which enabled it to surmount ordinary barriers of space and time, it was naturally supposed to be of a light, insubstantial character. And so by an inevitable sequence of thought, primitive man was led to believe that he possessed a duplicate self, an ethereal spirit, a ghostly double of his everyday bodily self. This belief would seem to receive confirmation from the frequently observed and well-known accompaniments of the swoon, the trance, and the death struggle. In such cases it seemed clear that the soul or ghost had departed from the body,

temporarily or permanently, leaving it inert and helpless. This was especially indicated by the partial suspension of breathing in the deep-swoon or trance, and by its final struggle to free itself completely from the body in death; for the breath, itself invisible but mobile, ethereal but vitalizing and invigorating, seemed the appearance and manifestation of the indwelling spirit.

Once the idea of soul or spirit in this sense had taken form and been generally accepted, it was employed to explain the behaviour of natural objects and the working of natural processes. That soul or spirit which by its temporary absence during sleep leaves the body inert and helpless must of course be the moving, directing power of the body, the cause of its actions, the source of its efficiency. Is it not then to be inferred that the behaviour of physical objects, as well, of course, as that of animals and plants, is due to the spirits

which dwell in and control them? And with regard to the spirits of dead humans of whose continued existence we are assured by our dreams of renewed intercourse with them, must they not have an abiding-place? An abiding-place in the home of departed spirits where they go to join the souls of ancestors long dead and of the ancient heroes of the tribe. From the continuing spirits of heroic ancestors to divine spirits is but a short step and to imagine them exercising power over natural objects and processes, either directly or through lesser spirits, an almost inevitable consequence. With the result, however, that man's everyday world seemed to draw a large part of its interest and significance from the host of spirits supposed to people and govern it.

It is scarcely necessary to say that the existence of spiritual objects in this first sense has not been verified in fact. Animism may be

dismissed as a pre-scientific idea, unacceptable to developed intelligence. Ghosts, along with centaurs and mermaids, goblins and fairies, have been relegated to the limbo of the fanciful and fictitious. The normal advance of human knowledge is itself sufficient to seal the doom of this type of "spiritism." Ghost-stories are among the first of traditional beliefs to succumb to rational scrutiny and scientific criticism. And as for the behaviour of natural objects, which was assumed to require for its explanation the existence and intervention of spirits, this is found by increasing experience to be due to natural causes and resident forces. The events of nature are found to be linked together in such uniform and necessary connection that the cause of each occurrence is to be found in some other event or occurrence which inevitably precedes it in the system of nature. Indeed, the difficulty of getting even a fair hearing for Psychic

Research is partially due to the general feeling that here we have an attempt to revive a discredited spiritism.

A second conception of the spiritual brings us much nearer our modern idea of the soul or self. In this conception two of the positive attributes which distinguish conscious personality gain recognition. One of these is the continuing unity, the self-identity, which is inseparable from individual personality as we observe and deal with it in ourselves and other human beings. The second is the power of self-directed activity whose possession by human beings leads us to hold them individually responsible because capable of free choice. Combining these two attributes a conception is formed of the spiritual as *unitary, self-active being.* Springing as it does from an increasing insight into the characteristics of human personality, this conception applies primarily to the human self or soul, but is

equally applicable to all beings of similar characteristics and powers throughout the universe.

This second conception of the spiritual, taken very seriously as it certainly was, called for a sharper distinction between the spiritual and the material. Not merely must we deny to the spiritual the grosser properties of matter such as solidity and impenetrability; we must also deny to it all material and spatial properties whatsoever. This because what is extended in space is always an aggregate or collection of parts, hence never can possess real unity. In the spatially extended world the pursuit of ultimate and indivisible parts is hopeless from the start; space and the matter which fills it are infinitely divisible. Even the human body, abode of the soul and subject to its controlling influence, is a collection of tissues and organs; these in turn are composed of cells, and the cell itself is revealing

to the microscope an elaborate structure of constituent parts. These constituent parts will doubtless disclose a structure of their own, and so the analysis will be pushed on until we come perhaps to the electron. And if the electron is accepted by the physicist as the ultimate unit this is simply because the limits have been reached of man's power of physical exploration and explanation.

Of course the second conception is not, like the first, such an idea as might occur to the mind of a savage while puzzling over the memory of last night's dream or when gazing at the still, set features of a fellow from whose body life had departed after struggles of which he was an awestruck witness. It is rather the product of systematic reflection and presupposes some power of abstract reasoning. Its source, in Occidental thought at least, was the philosophy of the Greeks, particularly of Plato. It was readily accepted by the religious

philosophy of mediæval Christianity, however, because it attributed to the human soul that integrity and independent reality which souls must possess if their salvation and eternal well-being are to be regarded as the principal aim of divine creation. Besides, the conception of spirit as unitary, self-active being or substance appeared to furnish the basis for a conclusive demonstration of immortality. For the soul, if a simple unity, is indivisible. And since all decay consists in the disintegration of a whole and the separation of its constituent parts, the soul cannot suffer disintegration and decay. It is incorruptible and indissoluble; therefore, it is immortal. A neat demonstration, indeed. Its logic is sound if its premises are true. But that is the question.

Evidently the conception of spiritual existence we are considering has much to recommend it. Else it would not have appealed to great philosophers and seemed convincing to

acute theologians. But how has it met the test of continued criticism in an age of increasing respect for scientific standards of proof and verification? Not at all well: it has been shown to have defects and these defects have caused it to be rejected in modern times by psychologists and even by philosophers committed to the idealistic view. In the first place, if spirit exists in the character supposed, we should be able to find evidence, incontrovertible evidence, of its existence in the facts of common human experience. But such evidence is difficult if not impossible to produce. The sceptic Hume has given classic expression to the difficulty of such verification. "When I enter most intimately into what I call myself," he writes, "I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never catch *myself* at any time without a perception and never can observe

anything but a perception." To be sure, if what we mean by soul or self is just the progressive organization of all personal activity, "mental" and "bodily," this is just the way *not* to discover it. Still we must, I think, admit that the test is a fair one when applied to the existence of the self or soul as a simple, unitary being. If such unitary, self-active beings exist, they must, it would seem, signalize their existence in some verifiable detail of experienced fact. And it will be not unreasonable to look for evidence of their existence, if not among the sense-impressions we receive from the outer world, at least among the items of our inner experience. Nowhere do they reveal themselves, however; no attested empirical fact bears witness to their existence.

But spirit in this conception is not merely an indivisible unity, it is a source of original activity. When we consider, in the second place, the nature of this activity and what it

accomplishes in the actual world we are plunged into even greater difficulties. Not merely is evidence lacking that such activity does exist but it is hard to understand how even it could exist and operate. If spirit has no spatial properties whatsoever, it has no place in or from which to act, hence no point of contact with the living organism which is a material body in space. How then can it be conceived to exercise constant control over bodily actions or even to influence them in any way? The mere fact that we cannot understand how spirit in this sense can act on body is no final reason for denying that it does act on body, if there is convincing evidence of such action. But such evidence has not been presented. Those acts and achievements of our conscious lives which are supposed to be due to the direct intervention of soul are explained by modern psychology as the results of other activities and experiences with which

they are correlated in a variety of sequences and patterns. In the case of voluntary choice, for instance, where it was supposed that the soul could finally tip the scales one way or another, psychologists see the resulting decision as the outcome or outgrowth of many interrelated tendencies and experiences working together.

Still a third conception of spirit and spiritual existence remains. This has found favour in recent times partly because of the failure of the two conceptions we have been discussing. According to this view the spiritual realm is the inner life of conscious experience as contrasted with the outer world of physical fact. Spiritual, that is to say, is identified with the conscious and subjective. Here at last we seem to be on solid ground, to have discovered a spiritual world whose existence cannot be doubted by any sane mind. So far as evidence for its existence is concerned, the

existence of consciousness is testified to by the very activity of scientific intelligence which undertakes to investigate and examine it. And not only is consciousness an undeniable fact of every man's experience, it is an ultimate and irreducible aspect of the world. All attempts to reduce consciousness to a form of physical energy have failed and, we may confidently predict, will fail. After claiming that the iron laws of physical necessity account for all forms of existence, Ernst Haeckel found himself forced to recognize consciousness as an original property of the One Universal Substance. Much the same subterfuge was forced upon Herbert Spencer: after professing to deduce all the phenomena of evolution, including life and mind, from the Persistence of Force, he was compelled to assert that the dualism of spirit and matter as "symbols of the Unknowable" is, for our knowledge, ultimate. And contemporary philoso-

phers who discard the concept of consciousness as useless for rational interpretation are confronted with the alternative of admitting the existence of some other type of relation besides the physical or else leaving salient features of our actual human world unexplained.

Even this third conception, though it appears to be impregnable, is proving difficult to defend. It is of course a matter of common knowledge that consciousness as we possess and experience it, the inner or subjective life of human beings, is somehow dependent upon the activity of our highest nervous centre, the brain. But contemporary psychology is having notable success in linking it up in a detailed and thoroughgoing manner with the bodily reactions we make, through the instrumentality of our nervous systems, to the environment. So far has this gone, indeed, that one school of present-day psychologists is proposing to leave consciousness entirely out of

account. The human mind, these psychologists contend, can be understood altogether in terms of observable organic behaviour.

This refusal on the part of behaviourists to admit that consciousness exists as a scientific fact is not likely to make a deep or permanent impression on modern thought. It is an extreme and doctrinaire position. It hinges upon technical points of scientific procedure too fine-drawn and theoretical to weigh heavily against the assurance which common sense gives to every man, that he knows of the existence and contents of his own consciousness if he knows anything at all. But, unfortunately for this third conception of spiritual existence which we are examining, the same cannot be said about many recent discoveries in the field of psychology. These suggest that certain forms of mental activity hitherto regarded as the peculiar and perhaps exclusive property of conscious mind are so

intimately connected with organic responses that it is hard to see how they can have any independent existence apart from the life and activity of the human body. Take such feeling-states as emotions and sentiments, for example. Emotions have been known by their characteristic bodily expressions, to be sure, but the distinctive quality, the real core, of fear or anger or love or joy or grief was supposed to consist in a state of consciousness. But recent investigation has brought to light a complex of bodily disturbances which go far toward accounting for what is distinctive in emotional reactions. We now know that these are in large part due to the effect upon our internal organs of circulation, respiration, digestion, and elimination of secretions poured into the blood stream by the adrenal glands aroused to activity by external situations which strongly stimulate our fundamental instincts. Or consider reflective

thought and creative imagination. Here we seem to invade the very citadel of consciousness, for these are activities which have no necessary external accompaniment or overt bodily expression. But psychologists have proved that even these activities involve bodily responses, imperceptible, to be sure, but none the less real and invariably present: minute and invisible movements of the speech organs and, correlated with these, slight incipient movements of the larger muscles throughout the body. This accumulating evidence of the intimate connection of "mental" activity with bodily reaction is influencing the thought of our time and is making the proposal to find in consciousness the key to the spiritual principle in the world seem doubtful if not positively invalid.

The three conceptions of the spiritual, as ghost, as unitary, self-active being, and as inner consciousness, turn out to be one and all

untenable. Perhaps it would be more discriminating and just to say that the first is untenable, the second explains little or nothing, and the third is beset with so many difficulties as to be as much a hindrance as a help. It would be unfair to dismiss these conceptions as wholly false and absurd; they do contain in spite of all their defects a considerable amount of truth. Even animism for all its crudity reflects a fundamental fact of human experience, the fact that man does distinguish *himself* from his body and does exercise a degree of control over it; its mistake was in supposing this power to be possessed by a "ghost" the like of which was resident in all living beings and in objects of nature as well. The unitary, self-active soul theory expresses a true insight into the fact that there is another type of unity in the world besides that possessed by material objects and living bodies; its mistake lay in conceiving of this self-identical and

self-active unity as a single, indivisible thing. The view which identifies the spiritual with the conscious and subjective is also based on an indubitable fact, the fact that we have in consciousness, and especially in intelligent consciousness, an operative organization not found elsewhere in nature; its mistake has been to identify conscious intelligence too closely with the inner, subjective states of the human mind. These three conceptions of the spiritual are encumbered with too much difficulty and error, however, to be useful at present in formulating the religious view of the world or in reconciling it with the conclusions of natural science. It is surely not surprising, in view of this history of collision with advancing science and of refutation by its empirical researches, that an increasing number of thoughtful people should have decided that belief in any kind of spiritual reality is unscientific and should have resolved to pin

their faith to the experimentally attested conclusions of the exact sciences.

Nor is it at all strange that in this crisis, zealous champions of religion, anxious to retain its benefits for the relief and inspiration of humanity, should have tried to divorce it from any belief about the ultimate nature of the world and, with this end in view, should have proposed to take it merely as faith in our own highest social and moral ideals. But all such attempts, praiseworthy in intention, are foredoomed to failure. Religion stands or falls with the validity of a "spiritual" interpretation of existing reality. If the existing universe be wholly mechanical in its nature and workings, personal confidence in it is misplaced and personal communion with it impossible. And, contrariwise, if personal confidence in the real world is justified, and personal communion with it possible and

fruitful, then it cannot be wholly mechanical and must have a spiritual aspect.

In the face of this record of defeat and failure it requires courage to assert that there is a spiritual interpretation of the world which is rationally tenable, one which is not inconsistent with the results of science and which is supported by the facts of observation and experiment. Yet this is the claim I shall try to substantiate in the chapters which follow.

CHAPTER FOUR

THE WORLD OF PHYSICAL SCIENCE

SINCE the crucial difficulty with the religious world-view today is its alleged inconsistency with the conclusions of modern natural science, it will be necessary as a first step to say something about the scientific world-view. Our present purpose does not call for a complete statement of this view, even in general outline; if such is desired it can easily be found in books on the subject written by competent scientific authorities. I shall be content with a brief reference to certain outstanding features of the scientific conception of the world which are of importance to our inquiry.

The first thing we have to notice is that the scientific view of the world is not, and

does not purport to be, a description of existing objects as we encounter them in our ordinary experience of the world. It is an explanation or interpretation of the objects and events of the experienced world in terms of a selected group of attributes or properties. The properties selected are the material or physical qualities, what we commonly mean by matter and motion.

It is sometimes said that physical science disregards all the innumerable differences of quality which objects display. Perhaps a truer statement would be that it translates or reduces these qualitative differences into differences which can be quantitatively determined and co-ordinated. Even the slight acquaintance which we all have with scientific methods and conclusions is sufficient to afford illustration of this. Differences in colour and in brightness science reduces to differences in length, amplitude and form of light-waves,

differences in tone to differences in rate, amplitude and form of air-vibrations, and differences in taste, odour, temperature, and the like, to differences in the physico-chemical reactions of the sense organs to variations in the physical stimulus. Thus qualitative differences disappear from the world and with them goes the most of what we find interesting and valuable in existing objects. In place of the world we perceive with its rich diversity of colours and sounds, of tastes and odours and textures, of pleasant warmth and scorching heat and freezing cold, science offers us a system of moving particles which weave by their regular motions patterns of increasing complexity beginning with the atom and extending to stellar systems and galaxies which traverse the illimitable abysses of space. The atom, which was for long accepted as the ultimate physical unit, turns out to be a planetary system containing a positively charged nucleus

around which revolve a number of electrons or negative charges. Qualitative differences supposed to hold between different sorts of atoms, the "elements" of chemistry, turn out to be based on, or reducible to, the number of electrons which rotate about the central nucleus. Through a crossing of the paths of their outermost electrons, atoms become entangled and constitute molecules. Out of such clusters of entangled atoms the things we recognize and deal with are composed. Increasingly extensive physical complexes give us planets with their satellites and stars and nebulae.

Scientific explanation of the world is thus an explanation of the character and changes of existing objects in terms of their geometrical and mechanical properties. The said properties are extension in space and time, motion, inertia or mass, and force. As a system of mass-points in regular motion, science under-

stands the world. Now what advantages does it gain by singling out these properties and disregarding all others? The answer is that objects in their geometrical and mechanical properties have simple and constant relations which are capable of exact quantitative determination and mathematical statement. For objects in their size, shape, and movement are measurable and to measure is to discover a precise and constant quantitative ratio between two magnitudes determined by the number of times one contains the other. So when we say an object weighs five pounds, the number 5 symbolizes a constant quantitative relation between the object in question and a pound weight. Measurement is the first essential of scientific explanation. When such precise quantitative determinations of different sets of events are made, the investigator is in a position to detect relations of correspondence or concomitant variation between

them. When Kepler discovered the orbits of the planets to be ellipses of which the sun occupies one focus he was able to prove that the rate or time of planetary movement was proportionate to the area swept by a radius vector from the planet to the sun. Such uniformities of relation between classes of objects or events which have been quantitatively defined and determined are what we call "laws" of nature, a "law" of nature being nothing, as the scientist reminds us, but a description in terms at once general and exact of the way in which objects behave, or events occur. But explanation by physical law, be it noted, always consists in explaining the movement of one class of bodies by its determinate quantitative relation to the movement of another class of bodies, and ultimately by its relation to the whole interlocking system of regular motion by which its own movement is completely determined.

While all this applies to the science of physics and the type of explanation which it offers, does it hold true of all other natural sciences? Physics is after all but one of the natural sciences; there are many others: chemistry and astronomy and geology and biology and anthropology and psychology. As far as chemistry is concerned, it is now generally admitted that the phenomena which it investigates, of "chemical reaction," are ultimately explainable only by the physics of the atom. In astronomy and geology the only type of explanation regarded as final is that in terms of physico-chemical law. The biological sciences are more debatable ground, it is true; the question whether the forms and processes of life can be explained scientifically in other than physico-chemical terms is a subject of dispute among biologists themselves. But since both parties agree that many vital reactions can be explained physico-chemically, and a

large, influential group of biologists believes that we shall never have a true science of the living organism until all its processes are explained physico-chemically, it does not seem necessary to make an important exception of biology and its allied sciences. Hence we seem to have sufficient reason for treating such explanation as we have been considering—explanation by physical law and in exact mathematical terms—as the method characteristic of modern natural science.

Enough has been said, I trust, about the nature and methods of scientific explanation to establish the first point. This was that science explains the existing world not by discovering relations and connections which we can all observe between the objects of our common perception, but by interpreting the objects and occurrences we perceive as due to the behaviour of objects which are imperceptible and can be conceived or pictured only by

the scientific imagination, such as atoms, electrons, radiant energy, fields of force, etc. Despite the fact that these scientific objects and forces cannot be directly perceived, science does not doubt that they really exist, that they in fact constitute the reality of the world of common perception. Why is this?

The reason, of course, is that while the objects and processes by which science explains the changes that occur in the actual world cannot be directly perceived, their existence and operation can be indirectly verified by observation and experiment. If we are to understand the meaning of scientific verification, however, we must not think of the observation to which the scientist appeals as merely a passive looking, to which experimentation is an incidental aid. To guard against this misunderstanding it is perhaps better to think of the method of scientific verification as primarily that of experimentation, *i.e.*, the manipu-

lation and control of observed objects and forces. Measurement, which, as we have seen, is the first step in scientific investigation, always involves some kind of manipulation, depending of course upon the instrument employed. In the simplest and, in some ways, the typical case of applying the measuring rod, we compare two objects in respect to one dimension by juxtaposition.

Observation as the final court of appeal in scientific verification always involves a programme of action varying from a few preparatory adjustments of the body and sense organs of the observer, to a lengthy, detailed, and complicated course of laboratory procedure requiring the use of special instruments and technique. A definitely prescribed programme of action which can be repeated by the observer or by other observers at will is what we call an experiment. Now what suggests in the first place such a programme of

action, and what directs the course it is to take? It is suggested to the mind of the investigator by an anticipatory idea of certain changes which will be perceptible somewhere, sometime, in the actual world, in consequence of a uniformity of relation or law which he has been led by previous observations and experiment to suppose exists in the world of nature. This anticipatory idea, or "hypothesis," dictates his preliminary movements and manipulations. These may be brief and simple or prolonged and difficult, but their outcome is to put the investigator in a position to make a direct and decisive observation. And it is this which either verifies or disproves the supposed uniformity of relation which is under test. If the facts as perceived from the point of vantage gained by the series of preliminary movements bear out the anticipation of the investigator, his hypothesis within the field of its intended application

stands verified and is accepted as true to fact. This agreement may be direct, in which case what is perceived carries out or reproduces with greater vividness and fulness of detail the connection or sequence which the investigator has anticipated in imagination, as when certain paths of motion or structural patterns appear in the field of the microscope. Or it may be indirect, in which case the facts which observation discovers serve to reproduce or confirm certain consequences of the supposed laws, previously deduced and kept clearly in mind, as when the bending of light rays, or the shifting of lines in the spectrum, bears out some far-reaching physical hypothesis.

The conclusions of physical science are accepted as true, therefore, and its laws as really existing, because they enable us to predict what we shall find in advance of actual observation, to anticipate the course of nature

and thus to gain a measure of control over its processes.

Three salient facts have emerged from this brief discussion of the scientific view of the world:

First: Science explains the world altogether in terms of its primary or physical properties, extension in time and space, motion and mass. It conceives of every change in existing objects as due to the motion of mass-points or energy-units, and understands every motion of every particle to be proximately caused by the motion of some other particle and ultimately by the universal or cosmic system of regular motion.

Second: The first and essential condition of such explanation as science undertakes is enumeration and measurement. By the practical art of measurement various objects and occurrences are reduced to multiples of some fixed quantitative unit. Thus each different

object or event is determined quantitatively by its position in a series constituted by the repetition of an identical unit: inch, foot or mile, linear, square or cubic; second or minute or hour or years; miles per hour, vibrations per second, etc. Between these quantitative determinations of different classes of objects or events, correspondences and uniform variations are discovered and symbolized in mathematical equations which stand as exact indices of the causal dependence of one physical event upon another in the mechanical system.

Third: The conclusions of physical science are accepted as true, its laws as really holding, because they enable the investigator to predict what events will occur in advance of present perception, in this way to anticipate the course of nature, and so to gain a measure of control over its processes.

CHAPTER FIVE

THE WORLD OF EVERYDAY PERCEPTION, ITS TWO ASPECTS

MODERN science explains the existing world as a mechanical system, an order of physical events. Its success represents perhaps the most notable achievement of human thought and certainly we have no reason to question the validity of its conclusions within the field marked off by its own aim and method of approach.

Our query is whether another explanation of the world as organized by the values of personal life and association may not also be valid. Whether, more definitely, the religious view of the world as spiritually organized is necessarily inconsistent with the conclusions of science and whether it is not

supported by evidence of equal weight drawn from human experience and human experiment.

Are there, then, any facts or features of the world of everyday experience which can serve as an empirical basis for another interpretation besides the scientific? I mean features of existing objects which all can perceive, facts which are open to the experience of everybody.

We think at once of the great variety of different qualities which things present. We think of the colours and the sounds, the tastes and odours, the textures and temperatures of things. These diverse qualities seem to belong more intimately to the objects which possess them than do the physical properties. Thus it is the familiar bright red which marks the mail-box as receptacle for my letters; it is the clusters of fragrant purple blossoms among masses of green leaves which make the

lilac bush beautiful to look at; it is the cut and colour of clothing, the cast of feature and staccato footfall which identify the moving figure as that of an acquaintance hurrying away to his morning work.

Now it is just this wealth of different qualities apparent in the world which physical science, as we have seen, neglects and finally erases from the picture. Yet just these different qualities give to things their distinctive character. And not their distinctive character merely, but such interest and value as they possess. So the apple whose location in that dish merely gives it place in my visual field and has little or no connection with any of its intrinsic qualities as an apple—this apple appeals to me because of its ripe colour, its fragrance, and its presumed crispness and sweetness, each reinforcing the other and blending in an attractive harmony. So the blue sky, the bright sun and the fresh breeze

of a summer morning, and the warmth and colour and texture and snug fit of a winter coat.

It would be a mistake, of course, to represent these different qualities which things possess as altogether separate from their physical attributes or to suggest that the two have nothing to do with one another. As we well know, colour is frequently a sign of distance and size and weight. Sound and odour often serve to signify location and motion. Texture and temperature are frequently indices of purely physical properties. On the other hand, it is equally well-known that size and shape and proportion are inseparable from colour-pattern and help to determine the distinctive character, the essential nature we attribute to objects. In the illustrations just used the familiar shape as well as the colour identifies the mail-box, and the height, proportion, and rate of movement help to identify

the moving figure as that of a man. No, the difference is not simply between the spatial and quantitative properties of objects, on the one hand, and the whole variety of other qualities, on the other. It is primarily a difference in meaning and, as such, has fundamental importance. In the one class we have those properties called geometrical and mechanical which define the external relations which objects sustain to other objects collocated with them in the physical system. In the other class we have those diverse qualities which characterize objects intrinsically, which constitute in their varying combinations the distinctive nature which each possesses.

It is certainly a striking fact that science in its interpretations of the world leaves out of account the very qualities which give meaning and value to objects. This of itself would be sufficient reason for questioning the completeness and adequacy of the scientific explana-

tion. But if we are to base any conclusions or build any arguments upon the nature and importance of these diverse qualities, let us at first be sure that they exist as an authentic and ineradicable feature of the world we perceive. For one certainly gets the impression from some current expositions of the scientific view that these "secondary" qualities, colours and sounds, tastes, odours, and the like, are simply eliminated from the actual world when the white light of scientific intelligence is turned on it.

Are these qualitative differences then inseparable from the world we perceive and the objects it contains? Are the objects which we encounter and observe from day to day really complexes or patterns of different qualities? If now we consider how we come by our perceptions of the world and the objects it contains we shall see how essential to the

world as we know it, how ineradicable from the world, such diversity of quality is.

Our perceptions of the world which is the common theatre of our human life and action arise as the result of two responses. These two responses work together; they are in fact parts of one response which we as living individuals make to our external environment. The first is that of bodily movement, of the successive motor adjustments called forth by the external stimuli which play upon our sense organs without cessation during our waking hours. We stop to listen; we turn to look; we wince and draw back the hand; we start and jump. These motor reactions are not originally voluntary, we do not "intend" them; they are reflexive, instinctive, habitual. We find ourselves making them, and they are, as we know, the imperative conditions of organic survival. They are simply to be accepted as the price we pay for continuing to live and

act. But we cannot thus respond to our environment with continuous motor readjustment without (so far as we are conscious at all) acknowledging the external existence of the objects which evoke the successive movements.

So far as we are intelligent, however, we do more than acknowledge the external existence of the stimulus, we refer the response to the particular object which here and now evokes it. Our sensory-motor responses to external stimuli when they reach a certain degree of complexity are accompanied by another response which we may call that of *intelligent interpretation.* That sound (which makes me stop and listen) I recognize as the ringing of the telephone bell; the moving shadow (which causes me to turn and look) I see to be that of a man passing my window; the stinging pain (which makes me wince and rub my hand) I perceive to be that of a mosquito bite.

This is the response of our intelligence, which locates and recognizes and interprets objects by attributing to them certain distinctive qualities and relations which, for our purposes, identify them. The qualities are the ones just referred to as giving character to our world: shapes and colours, sizes and distances, tones and rhythms, motions and weights and textures, tastes and smells, temperatures and impacts. In different blends and patterns they combine to constitute the nature of objects and these in their turn are woven by various relations into the structure of our world.

Thus we become aware of the world of everyday perception, by a combined response of sensory-motor mechanisms and active intelligence. The two work in closest functional interdependence: intelligence is aroused to activity by incipient motor responses to sensory stimuli while these movements are directed

to completion by the interpretation which intelligence puts on the stimulus. The sound which checks the writing movements of my fingers and causes my head to turn slightly towards the door I recognize as the footsteps of some one approaching my door and I drop my pen to meet an expected caller.

As we should suppose from these fundamental facts, the qualities we perceive in things have a direct bearing upon action. Since it is practical interest that determines what objects are perceived we should expect that the resulting perception would bear directly upon the fulfilment of this practical interest. In order to understand how it does, we shall have to consider the way in which a practical interest gains fulfilment or realization. Suppose that my notice is attracted by a particular style of cap in a show-window, a style of cap I have long wanted. How in this case does my interest gain fulfilment? By my going

into the shop, finding a cap of the desired sort in my own size, paying the price, and carrying it away to be worn at my pleasure. As long as I merely perceived the cap in the shop-window I was prevented by actual conditions from enjoying its possession and use, from noting how it looked on my head, from putting it to ordinary wear and appreciating its jaunty appearance, its comfortable fit. In order to realize these qualities I had to make the series of movements which were required in order so to change my own position relative to the perceived object that I could freely and without hindrance make the movements involved in appropriating, examining, and enjoying it.

In the fulfilment of a practical interest, as this example shows, two steps must be taken. First, the bodily movements must be made which directly or through a chain of physical intermediaries put one in possession of the

desired object or, at least, in such close proximity to, or effectual control of it, that one is able freely and fully to examine and enjoy its characteristic qualities. These motor responses are made under external conditions set by the physical environment, and hence are subject to check and control by the results that eventuate as the movement proceeds. Second, the constituent qualities of the object in their distinctive pattern must be freely explored and enjoyed through the sensory and motor responses (such as handling, manipulating, listening, tasting, smelling, and the like) requisite for such appreciative realization.

Now these two steps involved in the fulfilment of a practical interest are reflected in the two classes of attributes which perceived objects are observed to possess. Here in the conditions of purposive action, then, we find the original source of this outstanding feature of

the world of everyday perception. The physical properties of things, such as location and distance relative to surrounding objects, size and shape, rate and direction of motion, relate themselves to our powers of bodily movement, each individual occupying as he does the centre of his own field of vital reaction and motor response. Their primary function is to indicate or map out the movements which the individual must make in order to appropriate or to avoid (for escape is sometimes a positive practical interest) the observed object. The second class of qualities relate themselves to our powers of appreciation and enjoyment. It is by virtue of the varied qualities which they combine into attractive patterns or harmonies that objects appeal to human individuals as sources of possible satisfaction. Perceptions are, therefore, plans of action and promises of satisfaction; they map out courses

of possible movements and identify sources of possible satisfaction.

But while objects attract our attention and afford us use and enjoyment by virtue of the different qualities which are combined in them, is it true that all qualities and complexes of qualities perceived in objects make this appeal to us or hold forth this promise of satisfaction? Certainly it is not a fact that all qualities possessed by objects attract us or promise on closer acquaintance to afford us satisfaction. Many objects by their distinctive character repel us with the threat of pain and dissatisfaction, and prompt us to avoid them as quickly and completely as possible. Such objects have an interest for us, a negative value, one may say; the response they evoke promises at least the satisfaction of escape. But are we not indifferent to many of the qualities, the sights and the sounds, the feels and the tastes and odours which the

things around us have or would have if we cared to take the trouble to investigate them? No doubt every human individual is at a particular time indifferent to the character of most of the things in the world; he is absorbed in the pursuit of urgent present aims. But it does not follow that he will always be indifferent to the nature of the objects he now disregards. Nor does it follow that his fellows will not discover that the qualities he never deigns to notice have a lively practical import and interest for mankind. Indeed, as men explore and exploit the resources of the existing world they are bringing within the range of human concern and possible satisfaction more and more objects to whose qualities mankind has been wholly indifferent. Thus it is impossible to say that the distinctive character of any existing object is without human interest and value. Indeed, as man's intellectual curiosity

grows and his technical proficiency improves, he proceeds increasingly on the assumption that no natural object or force is without rational significance and possible use. Can we not then agree that value is a principle of correlation and organization among existing objects as universal as that of physical causation?

CHAPTER SIX

THE RESPONSES OF APPRECIATION VS. THE RESPONSES OF ACTION

THERE is not the slightest doubt that the variety of sensory qualities we have been considering, the colours and brightnesses, the tones and noises, the tastes and temperatures and odours—not the slightest doubt that these different qualities *exist* as genuine ineradicable facts of human experience. Neither is there the least doubt that it is this wealth of different qualities which gives to objects such interest and value as they have for us.

But we have now to ask a further question, a question of critical importance to our inquiry. Does this range or variety of different qualities which we perceive in objects require

for its explanation an objective order or system analogous to the order of physical events? In other words, do the different qualities which appear in a countless variety of blends and patterns imply a relation as objective and universal as that of physical causation? It was suggested at the close of the last chapter that the meaning and value of these qualitative differences may be the key to their objective correlation and organization.

The mere suggestion that we can find in the meaning and value of the things we perceive any clue to their order and organization as objective facts will arouse, in some quarters at least, the strongest objection. Granted that things get their meaning and value for us human beings from their qualitative likenesses and differences, what has this to do, it may be asked, with their own nature as parts of the real world? This objection, in the several forms which it assumes, requires an-

swer if the case is not to be closed in advance against the line of thought we are pursuing.

In the first place, we may consider the view quite commonly held by enthusiasts for the methods of exact science that the different qualities which we perceive in the objects of our environment represent nothing but the effects which objects have, by virtue of their primary or physical qualities, upon our human organism, in particular, of course, our sense organs and brain. These organic effects, it will be further said, are in real fact physico-chemical reactions, and thus all the variety of different qualities we observe turn out to be mere subjective appearances, existing in our human consciousness but having no place in the world of scientific fact. True it is that since the time of Newton this view has been widely accepted by scientists as an integral part of the scientific conception of the world, and so possessing the validity and certainty

of attested scientific truth. Thus supported it has gained wide credence and has seemed to many people to substantiate a materialistic interpretation of the world. But recent authoritative studies of the method and scope of the exact sciences have demonstrated that the view in question is no part of the established conclusions of physical science and that we are today justified in dismissing it as an unfounded philosophical theory grafted on to the growing body of scientific knowledge. Professor Whitehead attacks the theory because it destroys the unity of the natural world and therefore undermines the foundations of natural science itself. As he says, it "bifurcates" nature into two divisions, "namely into the nature apprehended in awareness and the nature which is the cause of that awareness. The nature which is the fact apprehended in awareness holds within it the greenness of the trees, the song of the birds, the warmth of

the sun, the hardness of the chairs, the feel of the velvet. The nature which is the cause of the awareness is the conjectural system of molecules and electrons which so affects the mind as to produce the awareness of apparent nature." [1] Professor E. A. Burtt also attacks this view in his recent study of the historical beginnings and development of the modern scientific world-view. "But when in the interest of clearing the field for exact mathematical analysis," he writes, "men sweep out of the temporal and spatial realm all non-mathematical characteristics, concentrate them in a lobe of the brain, and pronounce them the semi-real effects of atomic motions outside, they have performed a rather radical piece of cosmic surgery which deserves to be carefully examined." [2] And the result of his

[1] Whitehead, *The Concept of Nature,* p. 30.

[2] Burtt, *The Metaphysical Foundations of Modern Science,* p. 312.

own examination, in agreement with that of Whitehead, is to show that when you have emptied the natural world of all except its geometrical and mechanical properties and then proceed to suppose these are the cause of our human sensations you have left on your hands unexplained the world of sensory appearance with its infinite variety of colours, sounds, temperatures, textures, and the rest, which is the sole empirical source of our knowledge of that other scientific order of mathematico-physical events. As Professor Hoernlé forcibly puts it: "The theory of matter which we are criticising may be described as the offspring of an unholy marriage between the old search for an ultimate substance and the new causal theory of colours, sounds, etc., as sensations produced in our minds. This twist of the theory makes out of the world actually perceived by our senses a subjective illusion and out of the material world

which causes it, a doubtful guess." [3] We are abundantly justified, therefore, in rejecting the claim advanced in this first type of objection as a mistaken theory, false metaphysics instead of true science.

A second type of objection appeals to the authority of biology rather than physics and has more strength and plausibility than the first. While we must admit, it maintains, that the variety of different qualities we perceive in things is a genuine fact of our human consciousness, still these qualitative differences only signify the bearing which various objects of the environment have upon the vital well-being of our species, indicating the kinds of response which the human individual must make if he is to survive. Thus the qualities which make objects interesting and valuable really exist (as constituents of our human consciousness) and their value is a real fact (for

[3] Hoernlé, *Matter, Life, Mind, and God*, p. 75.

us human beings). Hence while their value is a fact, it is a subjective fact, a fact of human psychology; it resides in the satisfactions which objects on account of their utility afford us rather than in the objects themselves. This objection is more weighty than the first and has a basis of scientific fact. Our sense organs and pathways of nervous transmission are the products of natural selection, and the qualities we discriminate and enjoy through them have unquestionable connection with the conditions of our organic well-being. Thus the colour of the fruit is a sign of its ripeness and ripeness means edibility, appeased hunger, and renewed strength. Thus a specific colour, red or yellow, say, means "can eat," "will nourish." But not all the blends and patterns of colours and sounds and odours which we perceive and seek to experience and to enjoy have this direct bearing upon our biological well-being. Patterns of colour and sound may

be attended to and enjoyed for their own sake as beautiful. The aesthetic delight which a fruit cluster furnishes us may not be in the least diminished by knowledge that the fruit is poisonous.

But such truth as is contained in this second type of objection finds expression also in a third argument which is urged against the kind of interpretation proposed. Hence we can pass on at once to the last and most formidable of the objections we have to take into account. The different qualities which external objects present to our senses are, it is claimed, subjective because of being determined to some extent by the sense organs and powers of sensory discrimination and synthesis of the individual observer. Hence no constant and universally valid relations are possibly discoverable between objects as complexes of qualities; their relations in this aspect of their nature (which gives them value)

are necessarily confused and shifting. In this respect they contrast unfavourably with the relations which hold among objects by virtue of their physical properties and which are found to be both constant and uniform when observed under experimental conditions at different times and by different observers.

It cannot be denied that there is an element of subjectivity in our perception of the various qualities possessed by existing objects. Sense-perceptions do differ with the sensory endowment of different individuals; the various degrees of colour blindness and tone deafness are proof enough of that. It is also a fact that some individuals perceive harmonies of tone and colour and form which are quite imperceptible to others. There is no doubt that the trained naturalist or practised woodsman perceives much more in the forest or bush than is apparent to the average person and that much of what he does

perceive in common with the latter he perceives quite differently. Of course it may be answered that in such cases as the last the actual sense-impressions are the same in both cases, the difference in what is perceived being entirely due to a difference in the associated ideas supplied by past experience and accumulated knowledge. But such a reply, while largely true, merely brings to light a new difficulty—that in the aspect of existing objects we are considering, *i.e.*, the complicated and changing patterns of diverse qualities they present, it is often quite impossible to distinguish what comes by the senses from what is contributed by imagination and memory.

These are serious objections, we must agree. How can we hope to reach an interpretation of the world which shall possess a validity as objective and universal as that of physical science when we start with data as subjective,

shifting, and unreliable as these qualitative differences seem to be? Indeed we must acknowledge, I think, that the validity of such an interpretation of the real universe in terms of significance and value rather than of physical causation can be established only if two conditions are fulfilled. The first is that constant and uniform relations shall be discovered and experimentally verified between objects in their aspect of value, *i.e.*, as blends and patterns of diverse qualities. The second is that these relations shall prove to be such as to organize existing objects into a coherent system through which the ideals of personal development and association obtain realization.

These conditions are, I believe, capable of fulfilment. Uniformities of relation between objects in their aspect of value are discovered by our responses of appreciation. There are three of these: I shall call them the responses

of *appreciative understanding, practical contrivance and invention,* and *aesthetic appreciation.* They are all of them psycho-physical activities. Each one is a function of our organizing intelligence and each one has its own particular bodily expression. Appreciative understanding involves and depends on articulate speech, practical invention involves and depends on manual dexterity and contrivance, aesthetic perception involves and depends on sense-organ adjustments and emotionally expressive movements which (in the case of some individuals at least) lead on to artistic production.

These responses differ from that of action through which, as we have seen, the physical properties of objects are first brought to light and then (by measurement and experimentation) their laws of operation are defined and verified. But this difference should not be misunderstood. It is not that action consists

in bodily movement while appreciation is a purely mental or spiritual activity. Both are psycho-physical activities; they are activities of intelligence and at the same time involve bodily movement. Action is the attempt of individual intelligence through bodily movement to bring about some change in the physical relationship of objects within its field of influence. Such changes may be brought about by bodily movements which merely alter the location of the agent relative to surrounding objects; or the agent may through movements of his own, initiate a series of changes in his physical environment. Appreciation is an effort to discover relations which exist among objects in virtue of their intrinsic and diverse qualities, relations which give them meaning and value. These relations, when apprehended or envisaged by intelligence, are defined and actualized by motor responses confined to our own bodies

and thus under our own control, such as those of language, of incipient manipulation, and of aesthetic-emotional expression.

Of course these two types of response, action and appreciation, are not two separate powers or faculties which operate in independence of each other. We are prompted to act, and the course of our action is in a general way predetermined, by the attractiveness of the ideal object which appeals to us as desirable. And appreciation not merely apprehends meanings and realizes values which exist; it imagines possibilities of meaning and value which need to be verified by action and experiment.

Why are these responses of appreciation so generally neglected today as sources of information about the character and organization of the real world? The answer to this question is not far to seek. Our era is the era of scientific discovery; our age is the age

of mechanical invention. Intellectually speaking we live under a spell cast by the rapid triumphal advance of modern natural science, culminating as it has in the evolutionary world-view, the unlocking of the atom, and the discovery of its hidden sources of energy. And as if this were not enough to turn the heads of our generation, human invention applying itself to the physical field and assisted by increasing knowledge of the laws and forces of nature, has in the last century produced a series of mechanical marvels culminating in the automobile, airplane, motion picture and radio, which completely dominate our everyday practical life. The use and enjoyment of these mechanical instruments of rapid movement and sensory stimulation have become the absorbing preoccupation of civilized society today. It is no wonder, therefore, that in our time men look to outward action, to physical experiment, as the sole source of

information about the existing world, the sole key to the mysteries of the real universe. It could scarcely be otherwise. But such a one-sided and inadequate approach to the central problem of life brings its logical and moral penalties from which our age has not escaped. The complaint is general that contemporary civilization has been mechanized, that in making itself efficient it has made itself trivial, shallow, and commonplace. Such is the inevitable result of neglecting our powers of appreciation, of failing to make sustained collective effort to increase and deepen our appreciation of the essential meaning and unity of the world, of its hidden potentialities of development and progress, of its ever-changing interest and permanent beauty.

CHAPTER SEVEN

HOW OBJECTS ARE RELATED IN THEIR ASPECT OF VALUE

WHAT uniformities of relation are discovered by our responses of appreciation? This is the question to be answered in the present chapter. It is the question upon which the whole issue turns; for unless such relations are discoverable and can be clearly defined there is no reason to believe in the existence of a "spiritual order."

The first of these relations which hold among objects in virtue of the different qualities which make them interesting and valuable is *coherence of character.* It is discovered by the response of appreciative understanding.

While the objects of perception change and pass, the correlated qualities which charac-

terize them continually recur, or rather persist, as the permanent kinds and classes of things we encounter in daily life. The coat which I now wear has kept its identity in spite of wear and tear, because it continued to possess certain qualities like comparative wholeness, fit, warmth, etc. In time it will go to pieces and be discarded. But as long as I live and am active I shall need a coat; its place will be taken by another garment possessing the same character and standing in the same relations to the rest of my wardrobe, to my health and comfort, to my individual possessions, to the industrial economy, and to social conventions. Particular objects of perception change and pass, it is true, but still they are woven by identities and diversities of constituent qualities into a permanent system of meaning. Coats and pencils, houses and trees, even mountains and lakes, appear and disappear, but the intelligible world to which

they belong and which makes place for these and all related classes and kinds of objects, endures.

If we fail to understand this, it is because we think of our perceptions as impressions made on our senses by external objects which get what permanence and order they possess from the regular course of physical nature. But such an understanding of perception is certainly far from the truth. When we perceive an object we identify it as possessing certain qualities and complexes of qualities which are familiar because they are constantly recurring in the same and different connections. And these constituent qualities which we recognize in an object because we have met each and every one of them in many other objects as well, serve to interconnect it with these objects by countless threads of meaning.

Even the different sense-qualities which

we recognize and identify in objects imply and connote one another. To discriminate a specific hue and tint of colour is to presuppose the whole range or system of colours. Colours are inseparable from shape and texture. Colour, shape, and texture, in some objects at least, involve qualities of taste and smell and temperature. But so far as our everyday dealings with objects are concerned, the meaning which any object has for us depends upon which of its qualities are selected as the key to its nature. Upon the desk before me is a long slender metal object. I see it as a paper knife. As such it is part of the equipment of my desk, thus falls in with pencil and paper and blotter, suggests books and periodicals and, if this line of association prevails, the whole field of my professional work. But this paper knife is shaped like a dagger. If this feature dominated my attention, I would perceive it not as a paper knife but

as a weapon. It would then bring to my mind the other weapons used in human combat and might suggest the subject of human warfare at large and its effects upon international relations and the social history of mankind. Or again the object in question, being artistically designed, might be perceived as a table ornament. As such, it would belong by nature with other objects beautifully wrought in brass and iron, and thereupon by implication with beautiful creations in other branches of fine art.

In the case of most familiar things, it is the human use they subserve, the human interest they fulfil, which is the feature about them affording the most convenient and meaningful basis of classification. In the previous illustration, I perceived the brass-piece as a paper knife because its adaptation to this use caught my attention as the outstanding thing about it. A primitive savage if he noticed it would

probably perceive it as a deadly weapon. When an object is thus understood in terms of its human use or social function, it is given a meaning which persists as its permanent character in spite of all physical wear and tear, as long as it retains these crucial qualities which make it useful. This meaning is shared by all other objects which in spite of incidental differences possess these same important qualities. Hence the object implies a group of objects which although differing endlessly among themselves still form a single class because they have in common some humanly interesting and socially important quality. And this interest, served by the class to which the object belongs, implies other diverse and correlated interests along with the classes and kinds of objects which serve them. Thus the meaning of any object implies the real existence of a system of objects related to the persisting interests of the human individual

and of mankind. It is this system which the response of appreciative understanding calls up; within its enduring organization a permanent place is found for the object of present apprehension; the object perceived loses its connection with the confused and changing sense-world and becomes a member of that more stable order of meaning and value which human intelligence and invention have discovered.

Still, the meaning which is given to objects when they are interpreted in the light of their bearing upon human needs and interests is in many cases only provisional and is certainly inadequate. Such interpretation answers very well in the case of objects of human contrivance and manufacture: clothing and implements and weapons, house furnishings, cooking utensils, vehicles, and the like. Even in the case of other classes of objects, such as those of the natural world, it

would be a mistake, however, to suppose that this type of interpretation is wholly human and subjective, and that the meanings which are thus defined have no objective import or significance. It is true that the interests and purposes of human individuals differ and that under their influence each individual would be led to a somewhat different understanding of the objects of his environment, natural and social. On the other hand, it is equally true that the fundamental interests of mankind are identical and common interests which, with the advance of industrial arts and social regulation, become organized into a stable and inclusive system. Now it throws no little light upon the nature of the existing world and the objects which compose it, that these varied but enduring interests of human nature have found in the existing world the specific qualities and complexes of qualities required for their satisfaction.

These interests and desires, persisting through years and generations of organized social life, have been met by objects characterized by similarly permanent differences of quality and relation. The continuing identity of personal and social experience which accompanies the ceaseless change of vital process and of individual existence in the human species finds its complement in an enduring system of different but interrelated qualities in the objects of the external world.

In spite of all this, we should agree that to understand a certain kind of tree as the tree-whose-bark-makes-good-corks is inadequate and that the meaning thus given to the tree has little objective significance. This way of understanding objects we are not wrong in regarding as an anthropomorphic conceit, resting upon the assumption, of course untenable, that the life of our human species is the be-all and end-all of the natural

universe, and our needs and wants the key to the nature of its every object. In truth such interpretation of natural objects is not merely inadequate; it defeats its own purpose. It takes no account of things which have not been recognized as useful or injurious or pleasing; it encourages the neglect of all properties in objects except those of known practical import and utility. But the fulfilment of the increasing needs of associated mankind depends upon the discovery of new uses for familiar objects and also of new sources for supplying them.

Hence man is led to seek an understanding of objects based upon their own inherent character rather than his interests and desires. To gain such an understanding of an object he must select as the key to its meaning not such of its qualities as have a direct human import and utility but those which serve to connect it most intimately with other mem-

bers of the class to which it belongs and to distinguish it most clearly from other types and kinds of objects. He must discover those characteristics common to vast numbers of objects whose differences and variations serve as the most illuminating, comprehensive and enduring marks of distinction and bonds of relation between them. This change from a subjective to an objective interpretation of natural phenomena is well illustrated by the history of attempted classification of plant and animal forms. Men first classified berries and fruit, we may suppose, as good to eat, not good to eat, and poisonous; animals as dangerous and harmless. Aristotle made an attempt at objective classification. But the first classification to gain general acceptance was that of Linnæus, successful because based upon a detailed study of the structure of countless plant and animal forms and a selection for purposes of classification, of struc-

tures whose variations clearly distinguished the sub-classes or varieties within the unity of the species. The Linnæan system lasted until the middle of the nineteenth century when the general acceptance of the Darwinian principle set naturalists to looking for other structures more valuable as bases of classification because they indicated fundamental and far-reaching relations of descent among living forms.

By such a process of correlation based upon an analysis of their own intrinsic qualities and relations, the meaning of observed objects is enlarged far beyond the limits set by the vital necessities of any individual or the practical interests of any group. Once this attempt at a complete understanding of existing objects is begun it cannot stop short of its goal (not yet attained and probably never to be attained) of a systematic correlation which shall

include all objects and organize them into a coherent, self-consistent system.

In explaining the order and organization of this world, different principles of interpretation are employed: the physico-mathematical, in terms of quantitative correspondence and mathematical ratio; the evolutionary interpretation in terms of development and emergence; the ethical interpretation, in terms of personal character and association. But in all these interpretations, the identities or uniformities discovered are, from the standpoint of appreciative understanding, identities in difference, uniformities which connect objects of diverse character into an organized system.

Undoubtedly human interest and purpose are operative in this intellectual enterprise, this attempt at a complete understanding of the existing world. But they are interests not of particular individuals or groups of in-

dividuals, but of the social intelligence of man in the general and inclusive sense. They are interests in a common understanding, in the communication of meaningful experiences, in the rational control of existing objects. In so far as these interests gain fulfilment, the unity and continuity of the world of social intelligence finds its external complement in the enduring character and coherent organization of the world of intelligible meaning. And this, be it noticed, is no mere "thought-world"; it is a real world, the intelligible world of rational insight and discourse.

There are other modes of appreciation than the intellectual, two other appreciative responses besides that of understanding. Both of these other responses bring to light fundamental forms of correlation between existing objects in their aspect of value. The organizing relation discov-

ered by our response of practical invention is what we may call the *functional adaptability* of objects. It means that objects reveal to our inventive imagination potencies of functional contribution to the coherent system which includes them, contribution to its stability and further development. Objects may appeal, that is to say, to our powers of practical invention as capable of contributing through their distinctive qualities to the formation of new objects with new combinations of qualities which are also interesting and valuable.

The progress of social organization among men has depended from the beginning upon such practical discoveries and inventions. They range from the simplest practical adjustments and contrivances to the most elaborate mechanical and social inventions. The many uses to which water and fire have been put are excellent illustrations of the relation-

ship to which I am now referring. Water possesses among other properties that of being a solvent. When set boiling by fire its power as a solvent and chemical agent is greatly increased. This fact makes possible the cooking of meat and vegetables and the brewing of nutritious and stimulating drinks. Certain leaves and berries, to take the latter case, contain a substance that is stimulating or strengthening to the human organism. These leaves or berries, perhaps after crushing or pulverizing, are boiled or simmered in water and the result is a new drink with properties of its own. Another property of fire, or of the heat it gives off, is to dry and harden, as the sun dries and hardens the clay, or fire dried the moisture and mud in the caveman's home. Special kinds of clay are capable of being easily moulded into the shape of containers and receptacles. Let the fire be applied to the moulded clay under suitable

conditions and the result is pottery with its new and distinctive qualities and its many uses.

Precisely the same relation among objects, that of contributing through characteristic and distinctive qualities to the formation of new objects with novel and important properties of their own, is illustrated by the most advanced methods of mechanical production. Contiguous deposits of coal and iron ore interest the industrial promoter because of the possibility they create of the economical manufacture of steel and steel products. Also large supplies of pulpwood along with waterfalls for the generation of electrical power, because they offer favorable conditions for the manufacture of paper. No more perfect illustration of the relation in question could be afforded than that of the automobile or airplane. The properties of gasoline had been long known. It was valued as a sol-

vent and a cleaning agent; while its inflammability and explosiveness were much feared. But vaporized and brought into effective connection with the electric spark, a water or air cooling system, and other devices and agencies, it has given us the internal combustion engine. And introduced into an appropriate structure made possible by the qualities of steel, aluminium and fibre, this has given us the automobile and airplane.

Nor is this adaptability, this potentiality, of new properties and effects confined to inanimate objects. It holds true of living beings as well. Let the dog be harnessed to the sled and trained to pull it and he manifests qualities of obedience, steadiness, and endurance that he has never shown when running wild or when kept as a pet. The work of Burbank and others in plant breeding has opened a wide range of new possibilities in the way of producing plant-forms with new charac-

ters and combinations of characters. There is no reason to suppose that the animal organism, even including man, is any less plastic and adaptable, although there may be more technical difficulties in exploring its potentialities. We are even considering the possibility of moulding the dispositions and impulses of the human individual to suit the requirements of civilized social life by a process of selective breeding.

In the field of social conduct and control inventive intelligence in the same way sees possibilities of eliciting new responses by altering the forms and conditions of social interaction. The introduction of the "fine" or compensation to replace blood-revenge was such a social invention: the custom, that is to say, of requiring the offender to humble himself, to make public redress and to present substantial gifts in order to repair the injury done, created a totally new social situation

to which the parties concerned reacted in an unprecedented way. The development of the technique of modern publicity and advertising has likewise meant the emergence of new tendencies and propensities on the part of the buying public which promise to have important economic and social consequences.

Certainly the value which we appreciate in objects consists to a large extent in the potencies of adaptation, use, and development, which they reveal to our inventive imagination. The inventive imagination is aroused, is fired by the varied and endless possibilities which it sees in the object, by the range of new objects and activities to which it opens the way. These possibilities present themselves only when our thought has discovered the distinctive qualities and relations which give meaning and character to existing objects. Before such attributes and relations are understood, con-

structive imagination has no material to work with. But once they are discovered, the qualities which characterize existing objects appear to inventive imagination as susceptible of separation and recombination, their relations of alteration and readjustment. The result of such imagination is the appearance of new features of special interest and significance. Because these possibilities of reconstruction and transformation in actual objects await such discovery, however, we have no reason to think of them as existing merely in thought and imagination. They are in the real world itself, in the structure and possibilities of actual objects. To be sure, particular constructions and readjustments have to be worked out by detailed experimentation but the general possibilities of adaptation and reconstruction are resident in the actual world. As far as the verification by practical experiment is concerned this, as we shall see later,

begins with the response of practical contrivance itself.

But, we may ask ourselves, is not this relation one which objects sustain in virtue of their physical properties and the laws which govern their interaction? Do not all practical inventions in the industrial and social fields depend upon the physical uniformities which determine the behaviour of all natural objects? Have not the triumphs of modern mechanical invention been consequent upon the progress of modern physical science? These questions may confuse us for the moment, but such truth as they contain in no way affects the validity of the statements which have just been made. To be sure the practical intelligence of the mechanical inventor, medical innovator, or social engineer is made more effective by exact information regarding uniformities of physical action, of vital process, and of psycho-physical response.

But what his imagination works with is the available materials and forces, identified by their characteristic attributes and relations. It will doubtless help him to know about molecular structure, atomic weight, wave-frequency, lines of force, and the like. But what he is directly concerned with is not atoms and ether and electrons and chemical valencies, but materials like wood and steel, aluminium and copper and concrete, and forces like steam and electricity. And what his inventive imagination envisages is not a physico-chemical resultant, but a new object: a machine, remedy, procedure, institution, possessing hitherto unknown and humanly interesting and useful properties of its own. After his experiments have succeeded and his invention is made, after the new object with its distinctive and original properties has been brought into existence, it is possible to trace out the uni-

formities of physical connection on which it has depended. But at no time past or present would the sum-total of scientific knowledge enable anyone who was master of the whole of it to anticipate all the practical discoveries that would be made in his own, not to speak of future, generations. Nor is it conceivable that it ever would.

At first such invention is merely a utilizing on the part of some human individual of the different qualities of some one or two materials in the fulfilment of an urgent present need. Thus primitive man fashions a new tool or weapon, or devises a new way of producing a desired result. So the hard and heavy and sharp-edged piece of stone is combined with the light and tough and rigid handle of wood and the result is a stone-hammer, or a tomahawk, or a spear. So a new method is devised for influencing the behaviour of fellow-men: a gift that will arouse

their gratitude or incline their favour, or a glorification of past triumphs which will inflame their pride and arouse them to new undertakings. Such simple inventions are not mere individual adjustments to environment in the biological sense, however. They are adaptations of the properties and forces which the intelligence common to all men recognizes objects to possess. Based upon relations which are generally intelligible, the new methods and instrumentalities are understood as generally efficacious and available. They can be repeated or reproduced by others and do actually associate many individuals in industrial and social activities which have a common interest and significance.

As the scope of practical invention enlarges, a greater variety of materials and forces is utilized, more extended and elaborate methods of operation are employed, and a greater and greater number of individuals are

associated as co-workers in practical enterprise. Lodges and wigwams and houses are built, pottery is manufactured, skins are tanned and cut to pattern and sewed, the metallurgical arts are developed. The family is organized, judicial systems are administered, towns are laid out and built and drained, civic relations are ordered and regulated.

The universal, the objective, import of practical contrivance and invention becomes progressively clearer as social evolution proceeds. Unmistakably it proves itself to be not simply the exercise of ingenuity and cunning on the part of individuals and groups, in order to increase their comfort or minister to their convenience, but rather an effort put forth by the practical intelligence of mankind to utilize all the resources of physical and of human nature in creating new sources of appreciable value, new objects of intelligible

worth. Its concern is not so much with the satisfaction of pressing subjective needs as with the realization of objective possibilities of new and interesting results in the forces of the physical world. So we see that the supreme interest of modern invention and technology is in the discovery and contrivance of new sources of mechanical power, in the waterfalls, in the tides, in the sun's rays, in the atom itself, power that may be used for any practical purpose whatsoever, and whose release and control signifies a final step in man's effort to unlock the resources and realize the potencies of the natural world. Of course practical invention of this order which has no specific utility but increases man's rational control over the potencies of his physical environment has nevertheless its immediate human value in so far as it implies the co-operative achievement of mankind in

the discharge of one comprehensive social task.

A third uniformity of relationship among objects in their aspect of value, that of *significant harmony,* is discovered by the response of aesthetic perception. Aesthetic perception is sense-perception made more vivid, penetrating, and significant by additional responses of imagination, emotion, and motor impulse. Not all objects call forth this response; it is certain, however, that many which do not would do so if our attention were not diverted from their intrinsic qualities by our curiosity as to their meaning or our desire to employ them for some practical purpose. But all objects which we feel to be in any sense or degree beautiful do evoke the response in question. They are for the most part objects of sight and hearing, although odours and perhaps other sense-qualities, in

addition to form and colour and rhythm and tone, contribute to the impression of beauty.

What precisely is the type of relation discovered by this response of aesthetic perception? When an object is appreciated as beautiful its diverse and interrelated qualities, whether of form and colour, light and shade, or tone and rhythm, so reinforce and enhance one another that they blend into a more and more intimate and perfect harmony. This harmony is so close and compelling that it cuts the object off from its external surroundings, lifts it completely out of its physical background, and sets it in a new relation. Thus the spectacle of the open sea stretching away beyond the rocky point, its rippling waves sparkling and glowing with the colours of the sunset sky, holds me spellbound: I am not merely oblivious of my immediate surroundings, I am reminded of the persistent features of human life, its ever-changing pros-

pects, its challenging hazards, its dark undercurrents, its mysterious horizons.

Does this relation seem vague and fanciful and to deserve to be dismissed by a question-begging epithet, such as "mystical" has become in this scientific age? It is revealed in clearest and most convincing way by every object of natural or created beauty, by every bit of landscape, by every bird-song or rosebud or painting or sculptured figure or musical composition or architectural monument which we appreciate or enjoy as beautiful. Because of the intrinsic harmony of their different qualities these objects signify the essential unity of the real world in some one of its important phases or expressions. And the creation and enjoyment of beauty in its various forms have played too extensive and influential a part in the social life of man to be dismissed as subjective whim or fancy or

amusement. It would be just as arbitrary and dogmatic to question the real truth and adequacy of scientific conclusions as to deny that poetry or music has any objective import or meaning.

If further light is desired on the nature of the relationship we are discussing, this is supplied by an examination of the responses involved in aesthetic appreciation. The free and harmonious play of perceptual faculties kindles the imagination which, working with similar freedom and spontaneity, supplements the object with a variety of congenial images and ideas and suggestions. The play of perception and imagination is accompanied by an emotional response with a definite bodily resonance. Indeed the emotional response if at all strong is connected with the arousal by the object, of a group of harmonious motor impulses which profoundly modify

and readjust the bodily attitudes of the subject. We can easily see why such a response as this neither explores the cognitive implications nor brings out the practical potencies of the object. Perception and imagination are too completely absorbed in the object to explore its detailed connections with other objects in the world of understood fact, and the motor tendencies are, through their harmonious adjustment, too completely in equilibrium to initiate any course of action with regard to it. But the response does nevertheless disclose one of the fundamental relationships among objects in their aspect of value. Through its effect upon feeling, imagination, and motor attitude, the object in aesthetic perception suggests by a kind of emotional generalization certain broad features of the real world which arouse the same feeling of inclusive unity and completely fulfilled mean-

ing. The beauty of wild flowers growing in the trenches of Flanders has suggested to many observers as well as to poet and painter the frailty and heroism of human nature, the shortness and the splendour of human life.

CHAPTER EIGHT

HOW THESE RELATIONS ARE VERIFIED

IN THE last chapter a most important forward step was taken in our argument. We found reasons for believing that our responses of appreciation bring to light three uniformities of relation among the objects of the existing world. These enduring forms of relation are: *coherence of character, functional adaptability,* and *significant harmony.*

These are relations which hold among objects in virtue of the different qualities which make them valuable, rather than of their physical properties which we take account of in action. They are uniformities of intrinsic nature rather than of external determination. Now the next question is: Can these relations discovered by our responses of appreciation be

verified as conclusively as science verifies its laws of physical causation? Science verifies the existence of physical laws by observation and experiment. Are the uniformities of relation existent among objects in their aspect of value also susceptible of empirical and experimental verification?

An experiment is a test or trial. The experimenter wishes to find out if some conclusion or conjecture to which he has been led is true in fact. He thereupon engages in a definitely planned course of action which his tentative conclusion suggests, and carefully observes the consequences. If they turn out to be what his own theory had led him to anticipate, he regards this theory as verified. Since the experiment proceeds under a prearranged plan which prescribes definite, detailed conditions, it can be repeated by anyone who is interested in the subject and thus

the results originally obtained can be tested and confirmed by any and all investigators.

Such experimentation necessarily involves action. For only if it entails a sequence of movements, a course of motor manipulation, does it fall within that outer world whose regular processes are open to the observation of all and can be relied upon to repeat themselves in case of all observers.

These conditions are fulfilled by the experiments of physical science. In this field of experimentation, motor adjustment and manipulation necessarily play a prominent part. For the generalizations of the scientist refer to the relations of physical determination among objects and these relations reveal themselves in the limitations which the external world imposes upon our motor responses. Sometimes the projected sequence of movements will be simply that of the observer to some point of vantage relative to

the object and of focusing or fixating his sense organs upon it. And the outcome tells the tale: Will the projected series of movements be met by a succession of external stimuli which permit it to proceed unhindered to its anticipated ending? Sometimes the motor adjustments involve the manipulation of materials and the employment of instruments and apparatus like the telescope and microscope and chronoscope. As we know, laboratory experimentation is a technical art requiring experience and skill for its successful performance, but always the scientific observer must, as we commonly say, keep an open mind. He must be prepared for surprises as he surveys the field of his microscope or telescope, be prepared to make unexpected stoppings and shifts and alterations in his responses of visual accommodation and general sensory-motor adjustment. Likewise the manipulations and technical contrivances of laboratory experi-

mentation are subject to external control; the chemist who embarks upon an extended experimental investigation must be prepared to alter his procedure the moment an unexpected turn of events calls a halt in his projected course of operation.

When we turn from the field of physical events to that of intrinsic values we leave the world of action (in the ordinary sense) for that of appreciation. Do we find in this latter field of value any motor responses which make possible experimental investigation and experimental verification? On first thought we shall be inclined to answer: No, appreciation is a purely mental or spiritual activity, not a physical response. But this answer, while natural, is mistaken, a serious error, due to the preconceptions of traditional dualistic psychology and philosophy. Have we not found that the three responses instrumental in appreciation—those of understanding and

insight, practical contrivance and invention, and aesthetic perception—are in part bodily responses? Understanding and insight are not merely responses of our cognitive intelligence, they involve responses of our organs of articulate speech. Contrivance and invention are not merely responses of our practical intelligence, they are also responses of our powers of motor manipulation and adjustment. The perception of beauty is not merely a response of our aesthetic intelligence, it is also a response of the mechanism of sensory adjustment supplemented by a variety of motor responses, some verbal and some determining the general bodily attitude.

Because each of these three responses is influenced by both the ideals of intelligence and the mechanisms of the body, (is in fact a psycho-physical response), they all proceed experimentally. Our intelligent interpretations are freely conceived in the realm of ideal

possibility, but they are also expressed in words, thus tested under fixed conditions of consecutive, consistent discourse, and modified in the light of the observed outcome. Our practical intelligence freely imagines new uses to which familiar objects may be put, new combinations and adaptations that can be made of existing materials and agencies, but at the same time it is rehearsing through slight motor responses the actual manipulations required to make the combinations and adaptations which are being imagined. Thus it is reminded of the limitations which external conditions impose upon our practical constructions and at the same time obtains fruitful suggestions as to other changes and transformations that may be wrought in existing objects. Our powers of aesthetic perception play freely with the beautiful object, but the resulting synthesis of qualities perceived and imagined is contin-

ually redirecting the sensory apparatus and motor impulses so that the meaning envisaged is corrected, modified, and enriched. It is extremely important to remember that the values we appreciate in existing objects are not discoveries of abstract intelligence as separated from body, nor are they properties of pure reason projected into, or enforced upon, material objects; they are features of the real world explored or, better, worked out by intelligent interaction of a bodily organism with its external environment.

But, we may ask, do not these three responses of appreciation differ in essential ways from those responses of outward movement on which the experimental procedure of science depends? It is true that they are, at least largely, imperceptible, and hence not open to general observation. And, secondly, they are to such an extent controlled by individual intelligence and will that they lack

the regularity and uniformity characteristic of mechanical causation. In this connection, it should not be forgotten, of course, that these responses are all subject to habit which tends to reduce all our activities to something like mechanical regularity. But there is a difference between the three responses involved in appreciation and the responses of gross bodily movement and outward action; this must be admitted. Indeed, were this not the case, were the responses of intellectual insight and practical invention and aesthetic perception not more directly under the control of individual intelligence, and did they not work with greater freedom and spontaneity than those of ordinary bodily movement, they could not be effective in appreciation. While this is true, it is also true that each of these responses extends itself on the bodily side into the external world of outward movement and common observation: in-

sight and understanding express themselves externally in oral and written discourse, practical contrivance and invention in mechanical instruments, methods and appliances, and social customs, procedures and institutions, and aesthetic perception in artistic creations of all sorts.

Through these external expressions, these physical extensions, of the three responses of appreciation, the constant relations discovered among objects in their aspect of value become capable of experimental investigation and verification. Through them the values discovered in appreciation are communicated by their discoverers to others and made intelligible to them so that they can try for themselves to realize them in the objects of everyday perception. Thus the uniformly valuable features of existing objects gain social corroboration and general recognition. Those identities and differences of meaning

which connect a given object with all other objects of human interest are expressed in spoken words and given permanent embodiment in descriptive, historical, and scientific writings. Thus the opinions and conclusions of one individual can be examined and criticized by others who will pass independent judgment upon their consistency with fact. Adaptations of actual objects to rational uses are embodied in mechanical appliances and social procedures, to be employed and tested by others contemporary with the inventor and of later generations. Intrinsic and significant harmonies felt through aesthetic perception are given sensuous embodiment in painting and sculpture, poem and song, drama and instrumental music, architectural design and decorative embellishment; thus they can be critically appraised and, if beautiful, can be enjoyed by all.

Suppose now that individual experience

and judgment are corroborated and the existence of these values in actual objects is socially verified. The particular insight, the practical invention, the artistic creation, is added to the accumulating body of literature, of industrial and social procedures and institutions, and of products of fine art in all its forms, which constitute the material of social culture. The accumulated material of social culture, therefore, embodies and symbolizes the fact that objects in their aspect of value disclose themselves to our intellectual insight, our practical intelligence, and our aesthetic intuition, as a developing system correlated by identities of meaning, presenting limitless possibilities of expansion and reorganization, and mirroring its own unity in the structure and constitution of some of its component parts.

The true function and importance of these products of social intelligence only become

clear when they are thus understood as the enduring and generally intelligible symbols of the relations which connect objects so far as they possess rational and personal value. Scientific and historical writings, poetry, drama, music, paintings, architecture, industrial tools and methods, political forms and procedures, social customs and institutions, all these furnish the human individual with the means of relating the objects of his own everyday perception, whose value he has appreciated perhaps subjectively and in terms of his own needs and desires, to the one objective value-system. They enable him to verify in the most convincing way possible, *i.e.*, by his own practical experimentation, the objective values inherent in the objects he perceives. As members of civilized society we have, each one of us, ready at hand and available for use, the means and the methods for testing and appreciating the real values of

existing things. As a matter of fact, we have become so accustomed to the presence of these agencies and instrumentalities which social progress has placed at our disposal that our appreciation of their marvellous efficacy has been dulled and deadened by very familiarity. But they do create possibilities of realizing the substantial, the universal values in everyday things and everyday activities, which arise from moment to moment in connection with the commonest incidents and most ordinary occupations of every passing day.

Imagine that I am sitting outdoors and a beetle lights on my sleeve. I may glance with admiring curiosity at its odd markings, or flick it off with instinctive repugnance. But if I am versed in entomology I can identify it by its scientific name and this name will be a key to its structural peculiarities and life-habits, its place in the family of beetles, and its genetic relations to other insects and to the

divergent forms of evolving life. Or think of the farmer ploughing his field on a spring morning. Considered as events in space and time, his own steps, the pull of the horses, the drag and thrust of the plough as it turns up sod and loam, all of them dissolve into the ceaseless process of physical change. And indeed the performance may have little enough meaning for the human actor; just a familiar sequence of external occurrences and habitual responses of sensation and movement. But the plough itself as the embodiment and symbol of man's protracted and severe struggle, first to extract from the earth a regular if scanty food supply, this familiar and prosaic instrument takes the act of ploughing out of its purely physical setting and places it in entirely different relations. It appears as a necessary factor in the far-reaching industrial enterprise of producing and distributing the amount of suitable food required to maintain

all members of human society in health and strength, and thus as an essential part of the great co-operative task of mankind in developing and utilizing the resources of this planet and of the natural world.

Even the money which I pay over the counter when I buy some needed article—these coins are symbols of the exchange value of the article purchased, linking my transaction with the organized system of commerce and industry whereby the economic needs of human society are met and its cultural interests given opportunity of fulfilment. Likewise the telephone which I use symbolizes the wider relations of my conversation as part of the intricate web of intercommunication on which the organized life of society depends. Marking a ballot is a trivial act, physically considered; only enough energy is expended to move very slightly an arm and the fingers holding a pencil which rubs over a white sur-

face and leaves a black mark. But the ballot symbolizes the value of political co-operation and, if thoughtfully employed, brings home to me the significance of citizenship in a self-governing nation. The architectural dignity and appropriateness and beauty of a public auditorium or legislative chamber frequently help legislators, committee members, delegates, and visitors to realize the social import and value of proceedings which, divorced from this context, seem frivolous, ineffective, banal.

The individual who would realize these values for himself must acquire from his social surroundings, language habits, practical skill, and aesthetic discrimination, as well as develop his original capacity for using these responses as tools of exploration, experimentation, and appreciation. Then, the accumulated culture of the race embodying the insights, inventions, and aesthetic intui-

tions of his fellows will provide him with a means of interpreting objects of direct perception in terms of inclusive human life and experience. And the three responses referred to, when thus trained in the field of social inter-communication, will equip him with permanent symbols in which to embody his own discoveries, practical achievements, and artistic creations, and thus make them part of the spiritual heritage of humanity.

CHAPTER NINE

THE OBJECTIVE SYSTEM OF VALUES AS THE SPIRITUAL WORLD

IF WE accept the conclusions of the last two chapters and are convinced that existing objects in their aspect of value are uniformly related in the manner described, related by their coherence of character, functional adaptability, and significant harmony, a third and final question remains.

Do these relations, inhering as they do in the qualitative differences rather than the quantitative determinations of existing objects, organize them into a system just as real as the order of physical events? If it can be shown that they do, we shall have proof of the existence of a spiritual world, an objective order, organized in accordance

with the values of personal intelligence and personal association. And religious faith will have gained that firm footing in the objective world, in the real universe, which it must have if it is to maintain itself in a scientific age.

Now it can be shown that the relations we have been discussing do organize existing objects into a permanent, but developing system. These three relations prove on closer examination to be different forms of one more comprehensive relation or, considered from another point of view, different stages or moments in one inclusive process.

We are now in a position to understand how this is. Coherence of character means that all existing objects are woven by identities and diversities of their constituent qualities into a unitary system of meaning. This system of meaning with all its possibilities of further analysis and explication is, as a whole,

implied in the intrinsic nature of every object included within it. Not the "flower in the crannied wall" merely, but objects much less significant apparently, the tiniest bit of living protoplasm, the smallest grain of sand, are found, when all their relations are explored, to imply the whole intelligible universe. Functional adaptation means that objects because of their distinctive and permanent characteristics present various possibilities of reconstruction and are capable of exhibiting, under the requisite adjustment, new qualities and attributes. Human invention takes advantage of this outstanding feature of actual objects. When man noticed the tendency of smoke always to rise he cut a hole in the top of his tent or lodge to permit it to escape; later on, this characteristic taken in combination with the incombustibility of certain materials like stone or brick gave him the fire-proof chimney with its steady draught.

Significant harmony means that certain objects, not on account of their intellectual implications nor their practical instrumentality but by virtue of their self-contained and self-revealing harmony, have the power of expressing the system of meaningful objects as a whole or in one of its salient aspects. The artist is successful in so far as he is able to avail himself of this capacity of sense-imagery to suggest through its own patterns and harmonies the ultimate meaning of things.

All the endless variety of objects which the world contains are organized into an enduring system by their intelligibility, their purposive adaptability, and their aesthetic significance. As intelligible, they imply one another by nature and, in their distinctive meanings, are mutually illuminating. As purposively adaptable, they effectively reinforce one another in producing results increasingly serviceable. As aesthetically significant, they

are constantly and cumulatively revealing through their own intrinsic harmonies that inclusive unity of which they are special expressions.

Such is the organized system of valuable objects or, as it has sometimes been called to distinguish it from the system of physical or material objects, the *realm of ends*. The realm of ends is a developing system, a diversified unity, which is constantly revealing new possibilities of expansion and enrichment. This it does in all three types of relation by which it is organized. Suppose that an object is understood in terms of its relation to the intelligible system. This does not exhaust its intellectual interest. On the contrary, it offers to attentive thought greater and more varied possibilities of meaning to be explored and appreciated. Since the living organism has been understood by evolutionary science in its wider and cosmic

relations, its processes have become an ever more fascinating and fruitful subject of study. The same is true of the fossil as understood by the geologist, the relics of earlier civilizations as interpreted by the archaeologist, and of similar objects in every field of investigation. The evocation of new and useful properties in existing materials and forces by inventive skill has not diminished but increased their possibilities of adaptation to rational purposes. This is well illustrated by the recent remarkable progress in mechanical invention and control. The invention of the telegraph and telephone with the discovery of electro-magnetic waves led to the invention of the wireless telegraph, the broadcasting of speech and music, and television. In the same way, the beauty of the sunset sky, the cultivated countryside, the surging waves, grow as we contemplate them. Because of the new intimations of meaning which a great work

of art is constantly suggesting to our attentive scrutiny, it is a constantly increasing source of enjoyment.

Our activities of appreciation are responses to the real value of existing objects. This value consists in their possibilities or potencies of original contribution to the organized system to which all by virtue of their distinctive characteristics belong. In our appreciations we respond to the infinitely diversified, continually growing unity of the real world, the cosmic reality—and to objects in their relation to this universal system. Our responses of appreciation are not limited, however, to discovering what potencies are inherent in existing objects of contributing to the Universal System. They also seek, and find, realization in oral and written discourse, mechanical and social invention, and the creations of fine art. These fruits or products of social culture are the external signs and

symbols, the objective expression and embodiment, of the possibilities of mutual implication, functional co-operation, and reconciling harmony resident in the objects of the actual world.

The conception at which we have arrived of the objective system of values as the infinitely varied possibilities resident in actual objects of original contribution to the diversified and developing unity to which all by virtue of their distinctive characteristics belong, is true, as far as it goes, but it is not complete. We have no acquaintance with this objective value-system apart from the activity of conscious intelligence. The possibilities of functional contribution referred to, that is to say, the *intelligibility, adaptability,* and *significant harmony,* of existing objects are inherent in the nature of these objects, we have reason to believe. But judging on the basis of our human experience, we

cannot understand how these possibilities could be defined, selected for realization, or actually realized, except through the activity of conscious intelligence. Indeed, intelligence fully developed, as we know it, is just the explicit formulation, deliberate selection, and effectual realization of these possibilities. It finds expression in the pursuit and progressive attainment of the ideals of Truth, Power, Progress, and Beauty.

Our idea of the character and activity of developed or complete intelligence represents, to be sure, the ideal limit of that progressive development which human intelligence has undergone in the course of man's social history. In the less complete forms in which we directly encounter it in ourselves and other human beings, intelligence is concerned primarily and (in most cases) principally with realizing the possibilities in actual objects of contributing not to the ob-

jective and universal system but to the maintenance and expansion of some lesser system such as individual and family prosperity or national welfare. But as moral and social development proceeds there is no doubt that intelligence is more and more effectively constrained by the appeal of universal and objective values.

The intelligence which is involved in the discovery and realization of the objective system of values is (so far as our experience goes) not *individual* but *social* intelligence. Indeed it is hard to see how it could be otherwise under any conditions we can imagine. Of course the natural existence of the human individual is too short, the range of his perceptive faculties too small, his mental energies too limited, and the conditions and circumstances of his life too hampering, to permit him to go far with the appreciative exploration of the values of the real world.

But apart from these limitations which might conceivably be regarded as accidental rather than essential to the individual intelligence, the possible values, intellectual, practical, and aesthetic, of the existing world are so infinitely many and varied that it is impossible to imagine how any individual, having of necessity a definite and therefore limited point of view, and choosing and acting consistently with this, could explore and realize them all. We can imagine their being realized on a scale at all extensive only by a society of intercommunicating individuals, the community of personal intelligence. In such a society each individual chooses freely in accordance with the interests dictated by his own unique outlook and realizes directly and by his own efforts certain values which appeal to him, and realizes indirectly by communication other values which have been experienced and appreciated by his fellows. In the case

of intellectual insights and discoveries, such intercommunication takes place through articulate speech, spoken and written; in the case of practical invention, through objective example and demonstration; in the case of aesthetic perception, through emotional expression and artistic production.

Thus the values inherent in the world are realized by countless individuals of succeeding generations, each with his own unique personal outlook which renders some particular facts or features especially luminous and significant. The real world discloses countless facets of meaning and value which through intercommunication are made accessible to the experience of all individuals. Since, then, the standpoint of each individual brings to light with exceptional clearness some element of truth, utility or beauty in the world, and since these individual apprecia-

tions are capable of illumination and enrichment through comparison with, and interpretation by, the insights, inventions, and intuitions of all the others, the possibilities of meaning and value which the existing world contains for the associated intelligence of mankind are infinitely many and varied. The realization of these objective values by a society of intercommunicating individuals is accompanied, furthermore, by the appreciation and enjoyment of three cognate values, *viz.*, mutual insight and understanding, cooperative endeavour, and aesthetic sympathy. These three values are both personal and objective. They are personal because they rise out of, and are realized through, personal association; they are objective because they are based upon capacities characteristic of intelligent personality under any and all conditions of its existence.

In concluding this chapter let us summarize the conclusions which have been reached regarding the existence of a spiritual order or world, before going on to discuss their bearing upon religion. There is a spiritual order or world, *i.e.,* an objective system organized on the basis of intrinsic meaning and value rather than physical causation. This objective system of values is constituted by three relations which hold among existing things: their intelligibility to our thought, their adaptability to our rational purpose, their significance to our aesthetic perception. In virtue of these relations, existing objects possess infinitely varied possibilities of functional contribution to the diversified and developing unity of the real world. The existence of this cosmic system of values depends, in our experience of it, upon the activities of conscious intelligence by which these possibilities are

formulated, chosen, and realized. Their actual progressive discovery and realization associates human individuals in common insight and mutual understanding, in co-operative endeavour and imaginative sympathy.

CHAPTER TEN

DOES THE OBJECTIVE SYSTEM OF VALUES IMPLY A COSMIC INTELLIGENCE?

THE faith of religion in the reality of a spiritual as distinct from a material world has good and sufficient grounds. This is an important conclusion but does not bring us to the end of our inquiry. We have still to consider whether belief in the existence of such a spiritual order as the system of values is sufficient by itself for the needs of religion. Or must genuine religion go further and affirm belief in the existence of a Supreme Spirit, a Cosmic Intelligence, a Divine Purpose, or a Personal God?

I do not think that the facts of man's religious experience and history would support us in saying that it must. We cannot doubt

that many individuals have responded to the existing universe with genuinely religious emotions of awe and reverence and personal confidence who saw no evidence in it of the controlling influence of a cosmic purpose or a divine personality. Great religions of the Orient have refused to ascribe anything like self-conscious intelligence or personal character to the Universal Reality.

What is indispensable to religion is belief in the reality of the highest values with which we human beings are acquainted. This is equivalent to believing that Universal Reality possesses moral and spiritual values, since the highest values we know are those of social intelligence and personal association. So even when religious faith is limited to the vaguest cosmic emotion it never fails to ascribe to the Cosmos attributes of spiritual value like inherent order and majesty, trustworthiness and ultimate intelligibility. And

religions like Buddhism which refuse to attribute to Reality any definite characteristics, such as those of moral and social value, seem to mean quite otherwise in their underlying import. For by depreciating separate individuality, condemning individual desire, and representing the acquisition of altruistic virtue as the only road to the attainment of eternal reality they practically assign highest reality to these spiritual values.

Belief in the reality of the values esteemed by social intelligence and sought through personal association we therefore take to be the irreducible minimum of religion, and cannot accord a like position to belief in a universal spirit or personal deity. While it is desirable to make this point perfectly clear, it is at the same time a fact that belief in God or in gods has held a central place in the religions of mankind. Indeed, more, it has seemed to the vast majority of men a necessary

implication of belief in the conservation of values, scarcely distinguishable in matter of fact from this latter belief. Proof of this is found in the historic fact that man's conception of God has kept fairly even pace in its development with his understanding of the values realized through rational insight and socially-adjusted conduct. Primitive man attributed to the gods superhuman power and little else, although this power differed from the power of purely natural forces by being responsive to human appeal. Then as social evolution proceeded and man gained a fuller understanding of the values of personal intelligence and co-operation, to power was added justice and to justice was added wisdom and the "beauty of holiness," and to wisdom and holiness has finally been added universal benevolence.

Hence it is a fair question, and one suggested by the conclusions reached, whether

the objective system of personal and social values does not imply the reality of a comprehensive and co-ordinating intelligence. Of course it should be understood that this question is, philosophically speaking, a speculative one. No strict demonstration of God's existence (or His non-existence) is possible; the idea of proving the existence of God in strict accord with the canons of logic was given up long ago. And while the belief in question is, as we shall see later on, subject to experimental investigation and testing, no such verification as is obtainable for the generalizations of physical science is in the nature of the case possible.

Understanding the existence of God, then, as an admissible postulate or hypothesis—the postulate, that is to say, of the reality of an All-Comprehensive or Cosmic Intelligence which organizes objects in their aspect of

value—we may now consider what reasons may be adduced in its support.

The system of values really exists. This, the conclusion we have reached, will now be taken as established fact and the starting-point of further reflection. What does it mean? That the objects of the existing world so far as their value is intelligently appreciated prove to be related in ways other than, and different from, that of physical causation. They reveal coherence of character, potencies of adaptation and transformation, and intrinsic harmonies which are significantly expressive. This does not mean that objects in their aspect of value constitute one perfectly organized system, one complete and self-contained whole. The system of values as brought to light in our experience is essentially a developing system, and there is no reason to doubt that human intelligence and invention really assist in its development.

But while it is a developing system and is developed (in part, at least) by human instrumentality, it is, nevertheless, a system and a *meta*-physical system.

Now is such a system conceivable apart from an immanent, organizing intelligence? It is true, to be sure, that values are in a sense created by our own rational insight, practical contrivance, and aesthetic perception. But they are also and at the same time discovered. For if existing objects were not intelligible, they would disclose no identities and differences of meaning; if they did not possess a certain order and fitness they would not be adaptable to rational uses; if the qualities of some of them were not intrinsically harmonious they would not reflect the nature and system of the whole. So the question returns: Is the intelligibility, the order and adaptability, the expressive unity, of actual

objects conceivable apart from an intelligence which knows and contrives and perceives?

One reply would be: Certainly not, the system of objective values implies the community of creative *human* intelligence; but there is no reason to go further. Still, there are difficulties which this solution does not wholly remove. Let us consider these difficulties as they first present themselves in their more obvious and (if you will) more superficial aspect.

The human individuals who share the life of intelligent community have each a brief existence and a fragmentary experience. If they alone constitute the community of intelligence, can it be said to possess any real unity and continuity? Suppose that some cosmic collision extinguished all life on this planet. Would the system of personal and social values then be destroyed? Or that some earthly influence hostile to man such

as an insect-carried plague destroyed civilization and reduced mankind to a few bands of roving savages. Would the community of intelligence be correspondingly shrunk near to the vanishing-point? If such is the case, the existence of the system of values is, despite all its coherence and organization and potencies of development, at the mercy of the circumstances and vicissitudes that jeopardize the existence of our organic species on this planet. If, on the other hand, we are convinced that the system of values does possess real organization and inherent potencies of continuous and consistent development, must we not rather suppose that conscious intelligence and rational purpose exist in some more comprehensive and enduring form than we are able to observe in the case of human individuals?

Supposing the objection to be, nevertheless, maintained that we have already attributed

a common reason to mankind and thus have already provided or allowed for a comprehensive principle of intelligent community, the answer will merely put the argument in another form. Human nature has two sides: man is both a natural being and a self-conscious person. He is linked by his organism with the succession of physical events to which, as stimuli, he must respond with appropriate movements in order to preserve his organic existence. But man as an intelligent person is capable of taking the comprehensive, the universal point of view. His world is a world of objects possessing identity of character and permanent possibilities of development and reorganization, the world as it must reveal itself to intelligent individuals in all times and places. This comprehensive and universal outlook makes the intelligent man a spectator of universal evolution, including of course the incidents, the progress,

and the approaching end of his own organic existence as well as the natural life and death of generations of his fellows. No view of man or of his destiny deserves serious consideration which does not give due weight to the fact that man is unique among all the forms of life we know in being intelligently aware of the fact that he is a living being with a limited span of life and therefore a being capable of effectually relating his own brief period of bodily life and activity to the larger issues of human progress and world-history which far transcend it in past and future. Of all the characteristics of man this is perhaps the most remarkable and significant, and if contemporary naturalistic theories are constrained to ignore it they convict themselves of a one-sidedness and inadequacy which is certain to be paid for by a reaction to idealistic views.

Now we grant that the succession of physi-

cal events with which man's organic existence connects him requires for its explanation a physical universe or order of events in space-time. Does not the universality of man's rational outlook which associates him with others in the community of intelligence equally require for its explanation the conception of an all-comprehensive intelligence which embraces within its permanent unity all intelligent individuals?

Are we not then bound to agree that the system of values implies the existence of a developing social consciousness which endures and embraces the consciousness of human individuals so far as they realize in their own conscious experience the universal values? I believe that we are, that this is a reasonable inference. But what are we to think of the scope and limits of this consciousness? Did it emerge when human intelligence first appeared in the process of

organic evolution? Has the natural universe come to consciousness of its own immanent values, come to consciousness of itself, so to speak, in the insights and ideals of human society and civilization?

This conclusion would doubtless meet the approval of many today who, while accepting the facts of science, wish to give due recognition to the idealistic factor in evolution. Perhaps it is as far as we can go. Yet there are further considerations which force themselves upon our notice. If the system of values exists objectively, how are we to understand its existence before human intelligence appeared on the scene of cosmic evolution? Man did not put in his appearance until comparatively late in our earth's history, say a half million years ago. What are we to think of the period, the millions of years, when the earth existed without intelligence and without any life at all? And what

of the vast stretches of stellar evolution antecedent to the origin of the earth? Did the system of values exist at all? If it did not, what ground is there for asserting that values are inherent in the real nature of things? But if, on the other hand, we are convinced that the system of values, *qua* real, did exist through the long courses of cosmic evolution, does not its existence imply as a necessary correlate a comprehensive and equally enduring intelligence?

We are, to be sure, quite familiar with the answer which the naturalistic evolutionism of our day is prepared to give to such a question as this. Yes, we shall be told, the values which man discovers and appreciates in the actual world, along with all the other functions and manifestations of life, existed in the period previous to man's advent and, for that matter, to the origin of life itself. But they existed *potentially,* were latent in the

simpler forms of life and, still earlier, in matter itself.

There is an assumption present in such reasoning, however, which is generally overlooked. And this assumption, when explicitly stated and impartially examined, proves to be somewhat questionable, to say the least. It is assumed that the order of physical events, which is not a fact of direct experience but an inference based upon the facts of common perception, existed throughout the whole course of evolution and furnished the real framework within which the whole process in all its phases, of value as well as of physical occurrence, proceeded. But the attributes of value, the permanent correlation of diverse qualities, the capacities for reorganization and adaptation, the intrinsic and expressive harmonies, are features of existence no less actual and important than its strictly physical attributes. And these at-

tributes of value, as we have also seen, require for their explanation the community of intelligence. This latter, the unity of associative or communal intelligence, is therefore on an equal footing with the order of physical events: both are inferences based upon the facts of everyday experience; both may with an equal right claim to signify the truth of the world of everyday fact, the reality inherent in existing things. But why then suppose that the earlier stages of evolution when many of the features of the now-existing world were not in evidence, proceeded within the space-time frame exclusively, and not within the organizing, associating unity of intelligence as well?

But this latter point need not be pressed to the limit; a case can hardly be made out on this ground alone. For it will be open to the naturalistic evolutionist to reply that so far as scientifically verifiable fact is concerned,

there is convincing proof that the physical forces we can observe to be now working in the natural world were also operative in all earlier stages of evolution, while there is no empirical evidence of the influence of intelligence or of rational purpose on the course of cosmic affairs before the time when the products of human art and the relics of man's social culture begin to appear. This brings us back to the underlying question upon which the whole argument turns. What meaning can we give to the existence of the system of values as *latent* or *potential* in the natural world during the earlier stages of its evolution? Exist in some sense these values must have, else their appearance at a later stage would have been a break in the continuity of the evolutionary process. Yet there is no empirical evidence, it is said, of their influence or effect upon the course of events at particular times and places. So we must

content ourselves with saying that they existed potentially, they were latent, in the natural world.

How, we still seek to know, are we to conceive of the potential existence of the system of values in the physical universe? Physical forces determine the effect of particle on particle, of event upon event, in the space-time system. But the presence in the natural world of the system of values even *in potentia* means the existence of another type of relation besides that of external or physical determination between mass-points in motion. It means the existence of a relation between the parts or members, *i.e.,* specific objects and events, and an organizing unity or whole which includes them, not as a space-time system includes the succession of physical events in sequence of external determination, but organically, by virtue of their intrinsic adaptability and their distinctive possibilities of

functional contribution. If this relation exists, then existence, *real existence* of some sort, must be granted to the "whole," to those enduring unities and forms which determine the progressive organization of the natural world and the explicit realization of its immanent values. In what sense can the "whole" exist, potentially if you will, but nevertheless really and effectively? I find it difficult if not impossible to understand it except as an anticipatory selection of objects, of existing materials, on the basis of their intrinsic character and fitness. One hesitates to mention purpose in this connection because purpose suggests to so many minds a power which arbitrarily interferes with, and sets aside, the regular order of nature in pursuit of some aim of its own. But purpose need not be given this narrowly human, this anthropomorphic, meaning. It may mean simply the immanent order of nature or, more definitely,

the effective ordering which proceeds in the natural world. Only so far as it involves an anticipatory selection, it implies the influence in all stages of evolution of an inclusive and organizing intelligence.

The argument may be put in a different way but the reasoning is in substance the same. The problem is that of explaining the origin of the objective system of values. Now if we desire to explain the occurrence of any physical event we try to discover the physical event or configuration of physical events which invariably precedes it, and when we have found this we are satisfied that we have discovered the cause of the occurrence which required explanation. If, however, it is the system of values which we have to explain, the explanation must necessarily take a different form. For the system of values is not a physical event or a configuration of physical events. It can only originate as the

anticipatory and incipient realization of the possibilities of mutual implication, functional adaptation, and significant harmony, inherent in the nature of things. But these possibilities are, as far as we can see, infinitely or, at least, indefinitely many and varied. Consequently, in order to explain the origin of the existing system of values we must postulate some creative agency which selects from the indefinite range of possibilities just these for realization. And this creative agency is the Cosmic Intelligence which we call God. "The religious insight," says Professor Whitehead, "is the grasp of this truth: That the order of the world, the depth of the reality of the world, the value of the world, in its whole and in its parts, the beauty of the world, the zest of life, and the mastery of evil, are all bound up together—not accidentally, but by reason of this truth: that the universe exhibits a creativity

with infinite freedom, and a realm of forms with infinite possibilities; but that this creativity and these forms are together impotent to achieve actuality apart from the completed ideal harmony which is God." [1]

[1] Whitehead, *Religion in the Making*, p. 119.

CHAPTER ELEVEN

RELIGION AND MORALITY

WE ARE now ready to apply the conclusions which have been reached regarding the real system of values and the community of intelligence it presupposes, to the subject of religion, and to ask whether they do not point the way to a type of religion which is supported by the facts of experience and susceptible of experimental testing and verification.

As a preliminary to this final step, we shall find it helpful to consider very briefly the relation of religion to morality. For these two major departments of human conduct and culture, while having much in common, have also instructive points of dif-

ference which bear directly upon the solution of our problem.

Morality like religion is interested in the values which existing objects and situations may possess. Indeed morality, as it is generally understood, means that sort of conduct which aims to realize the more inclusive and enduring goods of social life and personal intelligence rather than the more limited and fleeting satisfactions of natural appetite and individual desire. Moral reflection cannot accept unquestioningly, however, the hard and fast distinctions which are made by popular morality between higher and lower goods. For morality inevitably becomes conventionalized: men are dominated by the compelling sanctions of the moral tradition in which they have been reared, in their judgments of right and wrong.

Hence we shall avoid confusion if from the start we think of morality as the effort to

realize through appropriate courses of action the greatest values of human life, to attain what is sometimes called the *highest human good.* A difference between morality and religion at once appears. Morality consists in the practical pursuit of objects of great value and their progressive realization by dint of strenuous effort, usually prolonged, arduous, and exacting. Its interest is practical in a way religion's is not; it is concerned with the motives which are incentives to right action, and with the practical ways and means whereby these motives can be made effective in the realization of the greatest good. Its temper is strenuous, resolute, heroic.

Evidently if moral intelligence is to succeed in this practical enterprise it must undertake some comparison of the different sorts of objects as a preliminary to grading or organizing them in order of their enlarging scope and increasing importance. Some values, as we

know, are entirely subjective and relative. Ice-cream has value to me if I like it (which not *all* persons do); its value is relative to my individual taste. Other values are obviously relative to the customs and culture of particular social groups. Holding solemn and ceremonial family festival yearly in honour of family ancestors has positive and decided value to one brought up in a society where ancestor-worship flourishes. Money has great value as providing the material means for the liberation and fulfilment of personal powers under the guidance of socially-responsible intelligence, but used as a means for escaping social responsibility, securing bodily ease and comfort, and enjoying a continual round of private pleasure it has much less value. Bodily health and vigour have a very high value as the indispensable condition of personal activity and satisfaction. This value like that of money is relative and subordinate, how-

ever; not many would purchase life and health at any price of social dishonour, betrayal of friends, or loss of family affection.

In contrast with these subjective and relative values, we have found that there are certain values which are objective because acknowledged by personal intelligence in its universal outlook and capacity. These are the values of rational insight and mutual understanding, of fellowship in constructive achievement, and of the perception of beauty with its suggestions of ultimate harmony and social fulfilment.

But such objective values cannot even be pursued, much less realized, by isolated human individuals. They are essentially common goods which can be sought only by co-operation and enjoyed only in community. Their realization calls for the participation of individuals in a common stock of knowledge, in the discharge of a common social

task, and in the sympathetic perception of the significant features of our common human lot. And such participation in its turn depends upon intercommunication[1] between human individuals. Hence we must allow that the actual realization of these personal goods which moral duty recommends to human individuals is accomplished as much (or more) by intercommunication between the individual and his fellow-men as by his own original initiative and activity.

As a matter of fact, this antithesis between what is individually produced and what is socially acquired in the moral attainments of the human being is an unreal one. Have we not seen that those activities by which the

[1] The importance of intercommunication as a means, in fact taking human life in the large and mankind as a whole, the *principal* means, of realizing the values of personal life and association is explained in my book, *The Moral Standards of Democracy* (Appleton, 1925). I have there shown that the fundamental forms of human association are modes of intercommunication.

real value of existing objects is discovered and appreciated, *i.e.,* intellectual insight, practical invention, and aesthetic perception, involve bodily responses by which their results are socially communicated? I refer of course to articulate speech, spoken and written, to manual contrivance and technical skill, and to emotional expression and artistic production. Through these bodily agencies of communication, intelligible experiences of the real truth of things, of their adaptability to rational uses, and of their intrinsic and expressive harmonies are exchanged, and so made the property of social intelligence, available to all individuals who wish to share in their realization.

The forms of articulate speech serve to stereotype and signalize by means of conventional vocal sounds and visible characters what kinds of objects and connections of situations and events it is advantageous

for us with the vital and social interests of human beings to take notice and cognizance of. So the individual who learns to utilize the resources of language in interpreting the objects and events of his world and the results of his dealings with them, is really sharing in the social experience of intelligible meaning. His world has become the world of rational discourse, of experience translated into terms of our common human intelligence. He is participating in the interpretations and appreciations of mankind, given objective expression in the external medium of articulate speech. Once any one of us has learned in this way to give external and intelligible expression to his experience in dealing with actual things, he is in a position to communicate these experiences to others and to check them by the results of others' observation, action, and enjoyment. He can of course understand and appreciate the experiences of

others when they are told, described, or explained. The inevitable and constant interchange and comparison of experiences which follow tend to correct the deficiencies and distortions due to subjective ignorance and prejudice. Through such discussion the ideas of individuals are rectified and illuminated and their estimates criticized and confirmed.

The resources of speech are not limited to the spoken word, however. The written record gives permanent embodiment and enduring expression to what successive generations of men from the dawning of civilization have found to be intelligible and significant in the existing world. The individual who is capable of reading with understanding and appreciation this literature is introduced to the experience of humanity. He is given a share in the interests and insights, the revelations and disappointments of his fellows in all ages who have faced with an intelligence akin

to his own the vicissitudes of life upon this planet. And one who thus widens his intellectual horizons to include the significant experiences of humanity gains a new perspective for interpreting his own experience. He looks at the world of nature and of social life from the standpoint of humanity and the progressive stages in man's long and often painful struggle upward from the brute; he reviews in his own consciousness the course of cosmic evolution and world history.

The second agency of intercommunication is another bodily mechanism peculiar to man: the hand with its opposed thumb, the flexible wrist, and correlated muscles of the arm and shoulder and back. Its function is the manipulation of physical objects, the fashioning and fabrication of mechanical instruments, the combining of materials, and the adjustment and control of natural forces and tendencies with a view to the production of desir-

able results. The field of its exercise is the physical and the social environment. In the former its activity consists in the contrivance and use of tools, appliances and machines, and the devising of technical methods and processes. In the social field its work is the invention of methods of social procedure, organization, and control. Such for example are the modes and methods of government, the forms of social intercourse and amusement, the customs and usages of courtship, marriage and family life. These tools, methods, and appliances invented and employed in the industrial field, these social rites, procedures and ceremonies, are all of them objective expressions of the power of man's practical intelligence to realize in outward performance the values he finds in existing things. In one case it is the materials and forces of the physical world, in the other it is the psychophysical tendencies and aptitudes of the

human organism, which the intelligence of man adapts to its own rational uses.

Through the intelligent use of these practical methods and devices, the individual shares in the power which the rational will of man has gained over the agencies of his physical and social environment. Thus he is enabled to realize more fully than he could do by his own unaided efforts the practical values of his situation, its promise and potency of further adaptation and transformation. Thus the child who is reared in a modern home is at once introduced by early training to the practical values realized by the equipment and appliances of the house and the customs and observances of family life. He is taught to use knife and fork at the table and to observe the decorum and amenities of the family meal. He is trained to use the telephone. He is taught the forms of polite greeting and grateful acknowledgment. He learns by in-

struction and example how to welcome callers and to see that they are comfortably seated. Now all this may seem to be a matter of outward performance, the acquisition of skill in making certain bodily movements. But with a normally intelligent and well-disposed child it is much more. It means, at the very least, the beginning of a realization of the practical value of a modern house as the centre of family life and community intercourse. As his own outlook broadens, he finds himself sharing with increasing satisfaction in the varied activities, social and economic, of the home, family life, and the circle of family acquaintances. In a like manner but on a larger scale the machinery of economic production, distribution and exchange, the methods and procedures of government, the technique of education, sanitation and relief, all embody the practical values which the intelligence of man has discovered in his physi-

cal and social environment. The individual who uses them efficiently and with an understanding of their social purpose increases his own power and scope of action by allying himself in co-operative endeavour with countless numbers of his fellows who in all ages have laboured effectively to adapt the materials and forces of nature to the welfare of mankind.

The bodily structures involved in aesthetic expression and artistic production constitute a third agency by which experiences of meaning and value are communicated. As means of aesthetic expression the fine arts have developed: dancing, music, poetry, drawing, painting, sculpture, and architecture. Products of fine art give objective embodiment to that meaning which the artist feels to be present in the thing or situation, the meaning which stirred his emotion and kindled his fancy. This meaning is often vague and de-

fies articulate expression. Like all meanings it is generalized; it resides in a certain harmony of character and unity of pattern which the object is felt to possess. Through the emotion it has aroused the object appears to signify pervasive and typical, apparently commonplace but nevertheless fundamental, features of human experience. This significance the artist seeks to express in his medium while his fellows, through an acquaintance with, and appreciation of, his poem, picture, or song, share in the emotional experiences which inspired it. Thus they increase their own capacity for appreciating the emotional and imaginative values of objects and situations which they themselves experience.

We now understand how as individuals we enlarge our experiences by activities of intercommunication, and thereby come to participate in the realization of those objective values of personal and social community

which we as moral agents feel it our duty to realize. Even with the help of this embodied system of social culture, however, it is impossible for us as individuals to go far in moral attainment or to realize the rational good in all its interdependent aspects, intellectual, practical, and aesthetic. Attainment in a single field must be purchased at the expense of neglect of others; if one has attained any depth of insight into the nature of the world and the character of his fellow-men, or played any effective part in the work of industrial amelioration or social improvement, or given artistic expression to the beauty inherent in nature and in human life, he must be content with his life's opportunity. Yet practical attainment is the essence of morality and moral ideals are objectives or aims of action to be progressively realized in the succeeding acts or series of acts of everyday life. It is not surprising that men should from sheer discour-

agement periodically lose their moral nerve, and times occur like the present when all talk of pursuing and realizing absolute or universal moral values is regarded as extravagant and visionary and the mere mention of a *Summum Bonum,* is apt to provoke a derisive smile.

Religion (if we now return to the original subject of our thought) in contrast with morality is not satisfied, even provisionally, with the realization of any one aspect or component part of the system of objective values. It is concerned and solely concerned with the realization of the system of values in its entirety, with its realization not in part but as a whole. Nor is it content like morality to pursue and to realize these values gradually by the slow and difficult path of practical endeavour. Religion seeks, or proposes, the *present* realization of the entire system of values. Confidence in the real universe means,

as we have seen, faith in the objective reality and controlling influence of the highest values of personal life and association. But this faith means more than intellectual assent to the real existence of these values. It means, when we identify it with religion, a realizing sense of the objective existence of personal and social values in their interdependence and unity. Unwilling to wait until in the slow course of time action shall have wrought its utmost in practical attainment, religion proposes to avail itself of all the resources of human thought and motor adjustment in a supreme effort at present realization of the system of objective values.

But if it is impossible to realize any one of these values, either truth, or practical power and organization, or beauty, even partially except through intercommunication, it is still less possible to realize the whole system of objective values except through inter-

communication. To what source shall we look, however, for such communication? The system of values in its entirety has been realized by no human individual, nor by any group of intercommunicating individuals. Obviously there is just one direction in which to look. All the possibilities inherent in the actual world of contributing to the life of personal-social community are envisaged only by the Cosmic Intelligence, in which all the personal and social values realized by humanity are comprehended and conserved in their interdependence and unity. Now this is just the quarter to which religion does look. It proposes the present realization of the system of personal and social values through intercommunication with the Supreme Intelligence. In all ages, communion with God, however crudely conceived, has been the primary concern of religion. And communion with God as the method and the sole

method of realizing the true meaning and enduring value of the changing events of the natural world and the fleeting prospects of human life.

It is one thing to propose such communication with the Divine Intelligence and to rhapsodize over the benefits it may confer on mankind, and it is another thing to say how within the limits of observed fact it may be carried on, and how the fruits of such communication or pretended communication may be experimentally tested and verified. What means has man of communicating with the Cosmic Intelligence? He has the three psycho-physical agencies of communication which have been referred to: articulate speech, practical contrivance and invention, and aesthetic-emotional expression. How religion would employ these agencies for purpose of communication with God will be discussed in the concluding chapter.

CHAPTER TWELVE

THE RELIGION OF EXPERIENCE AND EXPERIMENT

IN CURRENT writings on the subject, "experimental" or "experimentalist" religion seems to mean little more than that type of religion in which the human individual falls back entirely upon his own observation and experience. Instead of accepting the claims of supernatural revelation, or conforming to the usages of established religious institutions like churches, he shapes his religious beliefs in accordance with the facts of his own experience and the exigencies of his own behaviour. And such beliefs in the matter of religion as he finds helpful in meeting the complex and changing situations of the modern world, as seem to aid in adjusting him

to his social and cosmical environment, he will be inclined to accept.

It is true that Professor Kirsopp Lake, who has recently called our attention to the importance of experimentalism in religion and has written in an illuminating way of *fundamentalism, institutionalism,* and *experimentalism* as the real divisions of Protestant Christianity, does give to experimentalism a somewhat more definite meaning. The experimentalist holds, he says, that there are two great experiments in life which are the basis of religion.[1] Both depend upon individual choice. The first is when a man chooses to become the servant of a great and inclusive purpose which he believes that he discovers in life. The second is made when such an individual, conscious of the impending failure of the first experiment on account of his own

[1] Lake, *The Religions of Yesterday and Tomorrow,* pp. 65, 66.

weakness, turns to the source of life for strength and comfort and purification. But as to the procedure followed in these two experiments, Professor Lake evidently believes that no general statements can be made; it is entirely an individual matter. "Each of these experiments can be made in many different ways; no one way is *the* way any more than any one kind of test-tube is *the* test-tube. No conclusion can be valid which ignores the results obtained by any one of these ways." [2]

Unless experimentation can be given some more precise meaning in the field of religion there is little reason to recommend it as a method of investigation or a basis of belief. Certainly experimental procedure as it is fruitfully employed in the natural sciences signifies something much more definite than this. The student of a science like physics who is to follow the approved method of ex-

[2] *Op. Cit.*, p. 66.

perimental procedure in his study of the subject is not simply turned loose in the physics laboratory with instructions to do what he can with the apparatus and to observe and record the results of his "experimentation." Such a method would not take him far toward a mastery of the subject. Authorities would generally agree, I think, that there are three requirements for fruitful experimentation in any scientific field. First, the student must have some clear notion of the aim and scope of his science; second, he must have some preliminary acquaintance with technical methods of experimentation appropriate to the field; and, third, he must have some knowledge of the results which previous investigators in the field have gained by use of these methods.

Are not these three requirements mandatory if the experimental procedure is to be followed in religion? To be sure, religious

inquiry is different from scientific investigation. The values whose reality religion affirms are values at once social and personal; they presuppose the community of social intelligence, without doubt, but they imply the distinctness of individual personality as well. Religion is an intimately individual and, in this sense, a subjective concern; it is the response of the human individual with outlook and aspirations altogether unique and his own, to the total scheme of things. Hence we must admit, I think, that private judgment will always hold its place as a final court of appeal in religion; each individual must make his own reckoning with the ultimate issues of life and the cosmic powers which control his final destiny.

Is a truly experimental procedure therefore impossible in religion? Certainly if experimental religion can mean nothing more than trusting to one's own observation and

the results of one's own dealings with the situations of daily life, it promises little or nothing in the way of objective results.

The approach to the problem of religion outlined in the foregoing chapters indicates, I believe, that the three requirements of experimental procedure just mentioned may be fully met in the religious field and a genuinely experimental method adopted in religious inquiry. The aim of religion, we have found reason to believe, is the realization of the objective system of personal and social values through communication with the Cosmic Intelligence. The means of realization are predetermined for us human beings by the fact that we possess three psycho-physical agencies of personal communication: articulate speech, practical invention and construction, and aesthetic perception and expression. Applied in the field of religion these methods of intercommunication take the forms of

prayer, devoted service, and *worship.* In each of these methods the human individual has the advantage of being able to check and corroborate the results he has gained by the experiences of other inquirers who have used the same method of communication. He can turn for purpose of guidance and confirmation to the literature of religious thought and meditation, to the characters and careers of those great leaders who are shining examples of heroic devotion to the good of humanity and the cause of the world, and to those symbols and rituals, that music and architecture, which persist through the ages because they have been felt by countless thousands to embody and express the feeling of unity with, and completeness in, the Divine.

Let us then direct our attention to these three forms of religious response—prayer, devoted service, and worship—which we interpret as methods of realizing the objective

system of values through intercommunication with the Universal Intelligence.

"Prayer," says William James, "is the very soul and essence of religion." [3] Prayer, from the standpoint we have been led to adopt, is a mode of intercommunication. It is intercommunication with the Cosmic Intelligence by articulate speech, which helps us to realize the personal meaning of the world and the larger significance of the events and situations of our own life in relation to the whole. Obviously it is not the prayer of petition we are discussing, but rather the prayer of communion. Again quoting from James: "Notwithstanding the recency of the opposite belief, everyone now knows that droughts and storms follow from physical antecedents and that moral appeals cannot avert them. But petitional prayer is only one department of prayer; and if we take the word in the wider

[3] James, *Varieties of Religious Experience*, p. 464.

sense as meaning every kind of inward communion or conversation with the power recognized as divine, we can easily see that scientific criticism leaves it untouched." [4]

We shall not have to ask, it is needless to say, what language God speaks or to consider (as the psychologists of religion do) whether verbal "inspiration" and automatic writing have a supernatural source. Such questions are bound to appear to us irrelevant and, in the light of the larger issues involved, somewhat trivial. The conditions of the genuine prayer of communion, as we understand them, are simple but fundamental. The human individual perplexed and baffled, perhaps by incongruous and incomprehensible happenings of recent experience, perhaps by the more general inconsequence of natural events and the perversity of human fortune, perhaps by the still deeper-lying conflict between his

[4] *Op. Cit.*, p. 463.

own personal hopes and ideals and the ruthless forces of physical nature working without and within his organism, yearns after the inclusive and reconciling view. He formulates his problems and perplexities in words; he addresses them to the Supreme Intelligence; he waits earnestly and expectantly for light. And light does come: an illuminating change of perspective occurs; he sees things in altered proportions which he recognizes as true proportions because now they fit together; implications and interdependencies previously hidden begin to appear as he views his own experience and ideals in the larger setting of human relationships and world-order. He is ready to return with renewed hope and interest to his daily tasks and face courageously their confusing detail, their apparent futilities, their inevitable disappointments. When this occurs, prayer of communion has taken place.

The effect of the prayer of communion is evidently to give reality and increased motive-force to our personal and social ideals. Of such prayer can be said what Hocking says of worship: it "recovers the worth of life by recovering the natural vigor of the whole idea." [5] Emphatically it is not a way of taking a "moral holiday," of resting our harassed and weary souls by soothing visions of an eternally perfect order which we accept for the nonce as a substitute for the actual world. It is true that such mystical contemplation is often paralyzing to moral effort. But it is strange that minds which see this very clearly do not also see that it is equally paralyzing to moral effort to begin to doubt whether our ideals have sufficient foundation in the real nature of the world to be capable of fulfilment in any event. Let it be granted that we need to believe that our efforts in behalf of

[5] Hocking, *The Meaning of God in Human Experience*, p. 419.

moral righteousness really count, and there is work for us to do which has not already been done and which will remain undone unless we do it. But we need just as well to believe that there is work which can possibly be done. And the work of realizing the ideals of personal and social intelligence is capable of human accomplishment only if there is sufficient coherence of character, sufficient possibilities of adaptation and development, sufficient order and harmony, in the actual world to afford increasing scope and satisfaction to the activities of intelligent community. Now the prayer of communion helps to convince us that there are such "significant structures" [6] (to use Professor Adams' pregnant phrase), such valuable meanings and potencies and harmonies, inherent in the world for us to realize. Consequently it is not simply compensatory and consoling; it is also inspiring

[6] Cf. G. P. Adams, *Idealism and the Modern Age.*

and invigorating. It renews our conviction of the value of our ideals and it strengthens our faith in the possibilities of their realization.

Prayer we have been discussing as one of the principal modes of response by the human individual to the Cosmic Intelligence. The fact that it employs the instrumentality of articulate speech, however, precludes the possibility of its ever being merely an individual response. For articulate speech, upon whose resources the individual must depend in prayer, is a social product. The very language of prayer into which the individual can hardly help falling is socially standardized. With the prevalence and psychological influence of the conventional "language of prayer" we are not at all concerned; it is not of first importance and may be as much a hindrance as a help. But what is of utmost importance is that the fruits of this type of communication

by men in many generations past have been preserved in an extensive literature and have thus been made available for use by any individual who cares to take them seriously. Such an inquirer may learn what insights, correlations, and interpretations have been attained by the most sensitive and appreciative minds of the past in the prayer of communion, and then he may test them for himself by using the same method and noting whether it brings him a similar illumination. If the insights and interpretations in question are in this manner verified, they will have conferred a great boon upon the individual. For they will have carried him much further toward a realization of the system of values than he could go by his own initiative and unaided effort.

The religious writings to which I refer are much more extensive than the literature of religious devotion in the narrower and

more conventional sense. They include works of religious thought and meditation and a considerable portion of what passes for theology and philosophy as well. For in many cases the latter have importance not as intellectual formulations or logical demonstrations but as recorded insights and interpretations that have come as the fruits of religious meditation and communion with God. They are not to be judged logically by the strength of the premises and the cogency of the argument but experimentally by the test of personal intercourse and communion with the Supreme Intelligence.

The second of the three distinctively religious responses we are describing is that of *devoted service* to the cause of world-betterment and human progress. In speaking of "devoted service" as a *religious* response I do not refer to altruistic endeavour earnestly if intermittently undertaken as a moral duty. I

mean devoted service as a means of realizing through intercommunication the objective values of personal development and association. Such service calls for complete forgetfulness of self, the entire abandonment of self-interest and selfish ambition. It involves self-sacrifice, that characteristic note ever present in all profoundly religious experience, the losing of life in the lesser individual sense that it may be found in its larger universal reality. And inasmuch as such service brings into action our bodily powers of practical invention and adaptation, it is open to experimental use as a method of religious communication.

How can service, a mode of outward action or practical performance, be a means of intercommunication? How in particular is the kind of service we have in mind—devoted and loyal service to the cause of world-betterment—a means of communication with the

Cosmic Intelligence? We are so used to identifying all communication with *verbal* interchange that we are sometimes slow to see that the term may and does have a broader signification, and that there are other methods of personal intercommunication besides that by articulate speech. In the case of the kind of practical response which religion inspires, the human individual who, in entire forgetfulness of his private wishes and self-centred ambitions, devotes himself to the wholehearted and effectual pursuit of the values of personal and social community, experiences a working comradeship with the Universal Unifying Intelligence. In result there is communicated to him a realizing sense both of the nature and worth of those rational ideals which give meaning and value to the world and also of the prevailing power of that Cosmic Purpose which is working for their fulfilment and fruition.

That communication of this sort is an actual possibility and not a mystic fancy is conclusively proved by the experience of thousands of men who threw themselves with complete self-abandonment into their country's service during the Great War. Many, an indefinitely large number, of these reported that the result of thus breaking over the barriers which business ambition and private interest had built up, was a tremendous enlargement of the meaning and scope of their lives. Now for the first time, as the result of their act of patriotic devotion, they realized what their country and its institutions meant to them and, in the light of this revelation, the preservation of these institutions for their children and their children's children was the one practical purpose that absorbed all their interest and attention and energy, that became the only thing in the least worth while. And with this convincing realization of the worth

and importance of the social cause there went, we were told, a sense of greatly increased power. Individuals were no longer held back by the thought of their own disabilities and comparative impotence. They were swept up and borne along by the irresistible social forces with which they had allied themselves. Not as helpless pawns, however; for they felt themselves endowed with the might of these forces, they thrilled with the sense of a new power that had been communicated to them.

Such loyal service is what religion proposes, not to "king and country," but to universal progress, to the "flag of the world," in Chesterton's picturesque phrase. And when we think of the complete self-surrender, the unstinted heroic devotion which is called for, it seems to us matter-of-fact modern people as quite beyond the power of the normal human being. However this may be, it is undoubtedly the spirit which has charac-

terized pre-eminently the great moral and religious leaders of mankind: Socrates the philosopher who held his own life or death as of no account if justice and virtue could be preserved among his fellow Athenians and the laws upheld which had been enacted to maintain them, Gautama the Buddha who did not hesitate to renounce all the emoluments of royal lineage and princely estate to go forth a humble wanderer in search of a way of salvation for his people, and Jesus the Christ who saw that he must suffer many things in order that the gospel of the Kingdom of Love should be preached in all the world as a witness to the nations. And it is this supreme devotion to the service of humanity and the good of the world which is the secret of the power of such personalities as these over millions of their fellow-men.

Certainly their lives and their characters have had a marvellous, in the case of the last

an almost miraculous, influence upon their own and subsequent generations. Probably the most of the honest, unselfish effort which has been put forth by men to serve their fellows and to contribute to world-welfare has been inspired by the words and deeds of these historic personalities, and effectively carried on through their continuing influence. Perhaps this is because in the case of outward action, and particularly action of this type which must be co-operative in order to serve its social purpose, individual example and personal demonstration are more potent and necessary than in affairs of thought or sentiment. At any rate it is a fact that a large proportion of those who by responding with loyal devotion to world-welfare realize through communication with the World-Spirit the system of universal values, do so through the influence and intermediation of some outstanding historic person whom they

accept as the incarnation or unique revelation of the Divine. The Christian accepts the invitation which Jesus issues to all the children of men to follow him in the path of human service and to see whether they do not share in his convincing realization of divine fellowship and eternal life.

We are wrong, it then seems, to suppose that this second type of religious response by devoted service requires such exceptional capacities as to be necessarily limited to a few outstanding individuals. Quite possibly the average man may require the inspiration, the guidance, the encouragement, which can only come from the example of a great religious leader. But while he may be aroused to action by the appeal which such a character makes to his feelings and imagination, still the experiment is his own and the resulting experience his own. Furthermore, there is no reason to doubt that those who loyally

devote themselves to human service in any walk of life whatever do realize by communication the worth and the meaning of those personal and social values which are being realized in the world, whether it be the toiler who labours faithfully in loyal devotion to his job and the future prospects of his family and the welfare of the community as he understands it, or the housewife and mother who works incessantly and patiently to maintain the requisite conditions, material and social, of a wholesome family life, or the professional man who strives with unswerving loyalty to realize the social ideals of his profession.

It is no accident or idiosyncrasy that Josiah Royce, one of the great philosophers of the last generation, distinguished by the depth of his insight into the moral and religious experience of mankind, found the key to this side of human life in *loyalty*. And

loyalty, when all its implications are realized, he understood to be the practical service of the conscious superhuman unity of life.[7] All lesser loyalties, all serving of imperfect and even of evil causes, he held to be but the fragmentary form of the service of the cause of universal loyalty.[8] "Through our actual human loyalty," he says, "we come like Moses face to face with the true will of the world, as a man speaks to his friend."[9]

Worship, the third of the responses of religious communion, may be given a very general meaning or may be taken in a more restricted way. In its larger reference it certainly includes prayer and might include some forms of practical service as well. But taken more specifically, as we shall understand it in the present connection, it means a response

[7] Royce, *Philosophy of Loyalty,* p. 374.
[8] *Op. Cit.,* p. 375.
[9] *Op. Cit.,* p. 390.

of emotion and imagination to certain perceived objects principally of sight and hearing which have a symbolic import and significance. With these objects we are well acquainted: religious ritual and ceremonial, religious music and ecclesiastical architecture, decorations and furniture, including of course a variety of religious emblems such as the cross, the crescent, and the lotos flower.

Sensory stimuli of the sort mentioned, in the place of worship, call forth from worshippers responses of perception, emotion, imagination, and motor readjustment. They watch together the appointed course of the "service" or the orderly procedure of ritual performance, they listen together to the words pronounced from the pulpit or before the altar and to the chanting of the choir, they rise in unison and join in singing and verbal recitation. Their faces and bodily postures express reverential and sympathetic feeling.

Now these overt responses have an intelligible meaning. They mean a reassuring common realization of the final fulfilment of personal hopes and ideals, of the ultimate harmony between man's highest interests and the nature of the existing world. They have this meaning because of the feeling they arouse of sympathetic accord with the World-Spirit, of reconciling love between the worshipper and God. Thus through the emotional *rapport* which it brings about between the worshippers and the Cosmic Intelligence, worship realizes by intercommunication the values of universal spiritual community.

The power of religious ritual over human feeling is, no doubt, due in large measure to the meaning which its successive acts and symbolic objects have acquired through the influence of tradition and associated ideas. At their best they are visible symbols, sensuous embodiments, of what is noblest in human

aspiration and attainment, of unswerving fidelity, unsullied purity, perfect justice, heroic devotion, sacrificial service, and conquering love. As such, they help to give reality to the highest personal and social values by clothing them in sensuous imagery which supplies food for imagination and stimulus for feeling. Indeed, to the sceptically-minded we may seem to have here the whole explanation of the rational meaning which the response of religious worship was said to have for the worshipper. Customary rites and ceremonies performed in a conventionally ecclesiastical atmosphere and setting acquire (so it may appear), through long association dating back to childhood, a hypnotic power over the human individual, throwing him into a submissive and credulous attitude of mind and preparing him to accept without question whatever vague ideas of personal security and final fulfilment may be sug-

gested. This explanation has some plausibility and contains more than a grain of truth. Yet there are many persons who would accept it without hesitation and still continue to believe that when they were enjoying natural beauty they were "communing" with nature, *i.e.*, realizing through the feeling of aesthetic appreciation which had been engendered in them, an essential kinship of the outer world with their own personal nature and longings.

The parallel thus drawn is assuredly relevant and valid. The response of religious worship is intimately related to that of aesthetic intuition. It calls into play the same psycho-physical processes of perceptual co-ordination, associative linking, emotional reverberation, and motor adjustment. Like the aesthetic perception it is called forth by the objects of present perception and it looks for, and depends upon, social confirmation. It is indeed hard to see why if objective signifi-

cance and real meaning should be granted to the response of aesthetic perception, it should be altogether denied to religious worship, and any meaning that seems to attach to this latter should be lightly dismissed as subjective and illusory.

Beauty and the effects of beauty upon the human mind and spirit play an important part in religious worship. Not merely as an external aid and embellishment, however; although it is often introduced in this way and proves to be a somewhat distracting influence. Rather because the two responses of aesthetic enjoyment and religious worship are intimately related and have much in common. Both are responses of feeling and imagination evoked by sense-objects perceived in a symbolic significance. Aesthetic enjoyment finds in the pattern and harmonies of sense-qualities a revelation of permanent meaning in the changing events of nature and the dissolving

panorama of human life. It is, moreover, essentially communicative. It expresses itself in changes of facial expression and bodily attitude which register in external movement the emotion which has been engendered. The artistic impulse has its root in this tendency of aesthetic intuition to express itself externally so that the meaning it has found may be appreciated by others and the feeling aroused may be enhanced by their sympathetic enjoyment. Thus aesthetic appreciation is a veritable form of intercommunication among men, uniting them in a sympathetic apprehensión of significant features of our common human experience.

In religious worship the factor of intercommunication is, if anything, still more prominent. All the resources of sense-imagery seem to be utilized in an appropriate and impressive architecture, in pictures and mural decorations, in the pomp and pageantry of

ritual, in instrumental music and vocal intonation, in poetry and song. But in actual fact the sense-symbols employed are the result of a long-continued and thoroughgoing selection. Such imagery has been chosen (consistent with the ruling purpose, a large place being given to imaginative biography, legendary history, and folk-myth) as will arouse in the consciousness of the worshipper a feeling of unity with the Universal Spirit, of love between himself and God. And such feeling of love which links the worshipper and his fellow-worshippers with God of course carries a meaning. It conveys assurance that the values of intelligent community in the universal sense will be finally and fully realized.

Whether the response of religious worship does thus realize the system of personal and social values can only be ascertained by personal experiment. No one can demonstrate that in the nature of the case it must do so.

On the other hand, neither can anyone prove on grounds of scientific psychology that it does not and cannot; for such pretended scientific proof is always found to rest on unproved philosophical assumptions. Individual observation and experience are therefore the final court of appeal. But a definite method of experimentation has been worked out and in a broad sense has been socially standardized. Furthermore, a considerable literature embodying the recorded results of previous experimentation in this line exists for the guidance of the investigator. To be sure, despite agreement so far as the general nature of the response is concerned, he will find the widest diversity in the modes and forms of worship among different religions and among different sects of the same religion. These differences are frequently supposed to symbolize and reflect differences in theological conception and doc-

trinal belief. But in their supposed theological significance he will not, if he is wise, take them very seriously. These differences do also reflect, however, differences in temperament and mental outlook as between different races and different types of mind within the same race and, so far as they do, they deserve thoughtful attention. The individual who wishes to make the fairest and most fruitful investigation should take pains to choose the form of worship most suited to his own taste and temperament.

To many minds it is bound to seem in the highest sense improbable that a response like that of religious worship should throw any light upon the nature of the ultimate cosmic reality. Is it at all likely, they will ask, that a response, admittedly of feeling and imagination rather than reason, to a set of sense-stimuli selected for their influence upon human emotion, has any objective import and

validity? While such doubts are natural and not altogether unreasonable, it is well to remember two things. One is that natural science, to whose methods and authority we rightly defer, limits itself to investigating the order of events in nature, to describing in exact terms the processes of nature, and never attempts to discover the character of the force or reality which manifests itself in the orderly processes of the natural world. The other is that in aesthetic enjoyment, a response which has much in common with religious worship, we seem to come into most intimate and satisfying contact with the reality of the world. In this connection, I think of the view of the late Bernard Bosanquet, eminent as a philosopher. In seeking for some illustration of the "Absolute," *i.e.,* reality in its unity and value, he turns not to a masterpiece of scientific reasoning like Newton's *Principia* or

Darwin's *Origin of Species,* nor to a notable achievement in mechanical construction or social organization, but to a work of art. He chooses a poem, Dante's *Divine Comedy.* For purposes of the illustration he has in mind, it does not greatly matter, he says, whether a poem is purely imaginative or, like Dante's, semi-historical. "For here we have actual persons shown as moving freely, and obviously themselves and self-determined, while no less obviously, though merely through a deeper insight into their selves, exhibited as elements within an embracing spiritual universe. And this spiritual world we feel on the whole—with immense reservations—not to be an arbitrary and artificial comment on the imagined factual history as lying outside it, but to be of the nature of a revelation of the true appearance which such histories might yield under intense illumination with-

out detriment to its factual objectivity for the common eye." [10]

Reviewing the three distinctively religious responses, *prayer, devoted service,* and *worship,* we see that all of them, as responses of intercommunication with the Cosmic Intelligence, involve a constant interchange between the individual and society. On the one side we have the original insights, achievements, and intuitions of individuals; on the other side we have the socially accumulated fruits of human communion and devotion preserved in the literature of prayer and meditation, in historical and legendary narrative, and in rituals of worship. For the individual of our day to turn his back on the religious experiences of previous generations, sifted and organized for his appropriation, and to rely entirely upon his own initiative and ob-

[10] Bosanquet, *Principle of Individuality and of Value,* p. 385.

servation in religion, is of course the sheerest intellectual and practical folly. He compels himself to go slowly and haltingly, with much fumbling and many false starts, over ground that he could cover in a fraction of the time with the illuminating suggestions and expert guidance of the great religious leaders of the past.

Unfortunately, however, the results of experience and inquiry in religion as in other departments of human culture tend to become stereotyped into a body of fixed doctrine resistive to change and growth, and the institutions established to propagate and foster them become narrow and hidebound in their principles and their practice. Hence, instead of encouraging free inquiry and facilitating individual experiment, they stifle original insight, suppress freedom of thought, and discourage individual experiment. When this is the case, it is the right, it is the duty, of the

individual to defend and to maintain his own freedom of opinion, his own originality of outlook, his own initiative in observation and experiment. In so doing he will not only preserve his own integrity of mind and spirit, he will serve the best interests of his fellows as well. For only under such conditions of complete personal freedom can he make any original contribution in thought or action which will enrich the religious experience of humanity. I cannot do better than quote in this connection the words of Höffding, whose *Philosophy of Religion*[11] has been a source of light to many students of religion during the past quarter-century.

"There is no doubt that we live in an age which must be described as 'critical,' not organizing. But this is not an admission that the only forces in operation are disintegrating forces. There is nothing to prevent

[11] Page 314.

smaller groups of persons forming round a common tendency of thought and spirit, or a common symbol. And such union is often deeper and freer than one in which traditional authority is the uniting bond. Moreover, the principle of personality, itself the expression of a great truth, may be regarded as one of the highest spiritual values. Whatever faith a man has or will have, the fact that he puts his whole soul into it, and that in the discovery and appropriation of that which he believes, his individuality finds scope to develop, invests it with a value which not even the best guaranteed ready-made system could ever command. This is a point at which all men may arrive at mutual understanding, however widely they may differ in respect to the content of their faith. As the appreciation of personal *nuances* increases, the personal accent will be less and less sacrificed to the integrity of positive and negative dogmas.

Here we catch a glimpse of an extension of the spiritual world which is certainly no less important than the extension of the material world in its time. The finest flower of all culture blossoms in the sympathetic understanding of the personalities of other men and it may perhaps follow, as a result of these personalities, that they will regard essential questions from a point of view very different from that which we ourselves occupy. Up to the present, few steps have been taken along this path. But the principle of personality is a positive and fertile principle, precisely because it points us to this path, and in so doing opens up the possibility of a feeling of solidarity deeper than any which is conditioned by adhesion to the same dogmas."

Personality is indeed, as our own argument has conclusively shown, the "positive and fertile principle" which gives to human life such permanent meaning and value as it possesses.

Personality is the source both of man's moral achievements and his religious aspirations. As living individuals we are born, pass rapidly to the end of a succession of changing experiences and our lives have no more meaning than any other sequence of events in nature, the formation and disappearance of a cloudlet in the summer sky or the sweep of the little whirlwind which stirs the dust for a few hundred feet on the city pavement. But, as we have seen, the words and the actions, the looks and the gestures, of human individuals may have a personal and communicable meaning. And when they do it is because they realize in some manner or degree the value which is inherent in the actual world. This value consists in the positive contribution which the varied objects and successive events of the natural world are capable of making to the enduring, developing community of associated intelligence.

It is quite possible that in emphasizing the personal and communicable meaning which attaches to the discoveries and inventions, the aesthetic perceptions and artistic productions, of individuals in relation to the achievements of others in these different fields of social culture, we have neglected the personal meaning and value of human individuality itself. For personality, be it remembered, is individual, uniquely individual, in outlook, as well as inclusively social in reference. Human individuality embodies and expresses, in varying proportions and interrelations, the objective values which give personal meaning to human life and link the individual with his fellows in a community of thought and feeling and achievement. The behaviour of each individual includes modes of speaking and writing, practical ways of dealing with people and things, changing shades of facial expression and characteristic bodily postures,

all combined in a unique whole. Hence each is capable of communicating, and to some extent does communicate, a distinctive and interesting point of view, new and valuable methods of physical control and social adjustment, original intuitions of beauty in the natural world and the social scene. Of course, the degree in which individuals actually realize the personal meaning of their own individuality varies widely, from near zero at the one extreme to the few individuals at the other who are outstanding because of the fulness with which they express in conversation, demeanour and action, the system of values in its entirety.

The claim may be justly made on behalf of Christianity that alone among universal religions it has ascribed absolute value to personality, that it has indeed valued human life and character solely on account of its personal meaning. And this personal meaning it has

understood in terms of functional contribution to the universal social community. If this is true, then the Christian religion has a message for a period like our own when civilized social life is increasingly dominated by a machinery of physical control and social interaction which, while it multiplies our social connections, to a like extent depersonalizes our social relations. If we are to save our personal lives and human associations from complete mechanization, we must turn the greatly increased range of social contact and influence which machinery has made possible, into a means for realizing the personal and communicable values of mutual understanding, co-operation in productive endeavour, and intelligent sympathy. Such effort to realize the values of personal and social community will scarcely be made by any considerable portion of civilized mankind without faith in the "reality" of these values, faith,

that is to say, in the possibility of converting the objects and events of the natural world into means for their realization. This faith inevitably seeks verification and fulfilment in the present realization through intercommunication with the Universal Intelligence of the values of spiritual insight, loyal service, and discerning love. And it is the peculiar distinction of Christianity that it exalts in the person of its Founder a life and character which perfectly exemplifies and effectively communicates these values in their complete and convincing unity.

INDEX

Action, 95
Adams, H. P., 219
Aesthetic appreciation, 130
Aesthetic perception, 127
Aesthetic sympathy, 163
Ancestor worship, 34, 191
Animism, its origin, 30
 its rejection, 35
Anthropomorphism, 108, 148
Appreciation, 94
Articulate speech, 139
Artistic creation, 143, 145
Attributes of God, 169

Beauty, 128, 129
 and religious worship, 236
Behaviorism, denies consciousness, 46
Belief in God, 22, 166
Blood-revenge and compensation, 118
Body and mind, 42, 48
Bosanquet, 241
Buddhism, 168, 227
Burtt, E. A., 87

Christianity, 250
Classification, logical and scientific, 104, 110
Coherence of character, 100, 153, 158
Communication, of meaning, 113
 with God, 207
Communion, with God, 13, 206
 with nature, 235
Community of intelligence, 177, 188, 193
Confidence, in Supreme Cosmic Power, 9
 in the world, 21
Consciousness, as irreducible, 44
Contemporary mechanistic civilization, 99, 251
Controversy over religion, 1
Co-operative endeavor, 163
Cosmic catastrophe, 173
Cosmic emotion, 167
Cosmic intelligence, 166, 184, 186, 206
Credulity, religious, 234, 240
Cultural influences, 2

Dante, 242
Definition, of religion, 3
 of the spiritual, 50
Demonstration, of God's existence, 17, 170
Devoted service, 222 ff.
Diverse qualities of perceived objects, 68

Dreams, 30
Dualism in psychology and philosophy, 137

Electrons, 56
Evolution of universe, 175, 179
Experience, religious, 243
Experiment, 134
Experimental procedure in science, 61, 135, 210
Experimentalism in religion, 208, 212
Extinction of religion, 26

Failure of supernaturalism, 48
Flanders, 132
Functional adaptability, 114, 117, 153, 158

Great War, 225

Haeckel, 30, 44
Highest human good, 190
Hocking, E. W., 218
Hoernlé, R. F. A., 88
Höffding, H., 6, 245
Human needs, 106
Hume, 40
Huxley, 20
Hypothesis, in science, 63
in religion, 170
Ideals, personal and social, 12, 159, 192
Immortality, demonstration of, 39
Individuality, 249
Inspiration, 208
Intelligence, individual and social, 113, 160
Intelligent interpretation, 74
Intercommunication, between individuals, 192
aesthetic, 201 ff.
practical, 197 ff.
verbal, 194 ff.
with God, 212, 243
Inventive imagination, 114, 122

James, William, 215
Jesus Christ, 227, 252

Kepler, 58

Laboratory method, 136, 211
Lake, Kirsopp, 209
Leaders, religious, 228, 229
Literature of religious devotion, 21, 239, 243
Loyalty, 230

Machine, 10
Man, 5
Matter, 54
Meaning, 101 ff.
Measurement, 57, 62
Mechanical appliances, 143 ff.
Mechanical invention, 98
Mechanical production, 116
Mediæval theology, 39
Modern technology, 126
Moral standards of democracy, 193
Morality, 189
Motion, 55

Motor manipulation, 139
Mutual understanding, 163
Mystery of life, 8

Natural selection, 90
Naturalistic evolutionism, 179, 181
Newton, 85

Objective reference of religious faith, 24, 51
Objectivity of values. *See* System of values
Orthodoxy declining, 22

Personal values, 11
Personality, human, 246 ff.
of God, 167
Physical order, 180, 183
Plato, 38
Potentiality of value in world, 182
Practical interest of perception, 76
Pragmatic justification of religion, 17
Prayer, 215 ff.
Psychic research, 35
Psychology, 45
Purpose in evolution, 184

Qualitative diversity in existing world, 68 ff.

Reality, 7
Realm of ends, 155
Religion, *vs.* culture, 2
vs. morality, 190, 204
vs. science, 20
Ritual, 232 ff.
Royce, 231

Scientific method, 59
Scientific *vs.* religious view of the world, 21
Scientists' defense of religion, 23
Secondary qualities, as existent, 72
as organized, 84
Significant harmony, 127, 128, 151 ff.
Social institutions, 118, 143 ff., 198
Socrates, 227
Soul, as self-active being, 36
Spencer, 44
Spiritual, its meaning, 28
Spiritual world, affirmed by religion, 25
Spiritualism, 28
Subjectivity, of secondary qualities, 85, 92
of values, 107, 192
Symbols, social, 145 ff.
religious, 232 ff.
System (objective) of values, 144, 157, 164, 171

Theology, 222
Trustworthiness of world, 16, 19
Twofold attributes of perceived objects, 78
Twofold response in perception, 73, 75

Uniformities of relation, 100, 134
Universe, 6

Value, objectivity of, 93 ff., 133, 151, 164
 of perceived objects, 80
Verbal discourse, 143 ff.
Verification, in science, 61, 64
 in religion, 134, 138

Whitehead, A. N., 86, 186
World as perceived, 54, 68, 180
Worship, 231

3558-2294B
89T

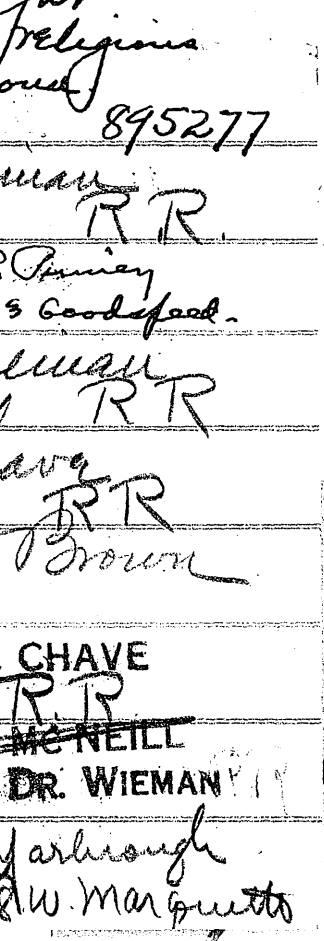
51
.W88

Wright
The Religious Response

MAY 28 '36
JUN 17 '36
JUL 15 '50
DEC 18 '50
MAR 26 '36
JUN 1 '37
AUG 25 '32
OCT 6 '35
DEC 23 '35
MAY 8 '36
DEC 18 '36
DEC 19 '36
DEC 20 '36
JAN 21 '37
JUL 17 '50
NOV 27 '37
NOV 27 '50

Blanchard
O. J. P. Hardman 6.45
A. S. Truett 4.15
Odell MAY 6
E. Keeler
N. Odell DEC 29 '38 OCT 5
Rowland OCT 18
S. Chaney
Block MAR 23 '39
Bond 2.30
C Bond 1.30
E Baines
W Simmons
C. T. Howell 10.30
C. T. Howell 2 P.M.

JUN 10 '36
JUL 15 '50
AUG 27 '36
JUN 25 '36
OCT 9 '35
DEC 18 '36
MAR 1 '37
JUN 12 '37
JUL 25 '37
OCT 12 '36
DEC 21 '36
MAY 29 '36



UNIVERSITY OF CHICAGO
44 756 589

895277

SWIFT LIBRARY

BL 51
.W88

UNIVERSITY OF CHICAGO
44 756 589